Measuring Envelope products and systems contributing to next generation of healthy nearly Zero Energy buildings

D3.2

Protocol for managing BIM-based information flow in innovation process

WP3

Dissemination level:
Public

The MEZeroE Project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 953157

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Executive summary

Technological innovation in the construction sector is considerably difficult to implement due to several factors such as the fragmentation and complexity of this sector. Many disciplines are involved at various stages, design and production are usually separated, there is a large number of players with a vast majority of small-medium enterprises (SME), and supply chains are long and variegated. As a result, gathering the different specialists together is difficult, and many potentially effective innovative solutions do not even reach the market.

H2020 MEZeroE project aims at tackling this complex issue by creating an EU-distributed open innovation ecosystem for (i) developing nearly Zero Energy Building (nZEB) Enabler Envelope technology solutions; (ii) transferring knowledge; (iii) matching testing needs with existing facilities; (iv) providing monitoring in living labs; and;(v) standardizing cutting-edge solutions coming from SMEs and larger industries, to foster inclusive change in the building sector, being accessible via a single-entry point to all users.

MEZeroE ecosystem will be accessed via a single-entry point web-based multi-side virtual marketplace which will include 9 Pilot Measurement & Verification Lines (PM&VL), 3 Open Innovation Services (OIS), and resources for training, business model development, systematic intellectual property (IP) and knowledge management. MEZeroE will fast-track prototypes to the market as fully characterized products.

The MEZeroE project provides open innovation services, general and tailored information, and training. The technical information will be distributed by a BIM-based approach exploiting digitalization and interoperability as well as adding several related layers.

Work Package 3 focuses on the standardization of workflows for envelope products for testing, modeling, and accelerating the route-to-market for innovative nZEB Enabler Envelope Solutions (nEESs). Referring to Task 3.2, the core of this deliverable, its main goal is the definition of a common and standardized protocol for BIM-based datasets management for envelope products and systems. This outcome will be implemented into the virtual marketplace as part of the OIS3.

This task has been organized and planned, to reach the abovementioned scope, into 6 main steps.

The first four steps have been performed and described in the document, presenting the respective results. Step 6 has been started in relation to the OIS3 activities in terms of the definition of the service, the scope, and the implementation phases to be followed in relation to the development of the MEZeroE standardized datasets, which will be then implemented in the Virtual Marketplace.

Step 5, related to the validation of the datasets, has been drafted and discussed in relation to the other tasks' activities and will be further discussed and developed in parallel with the ongoing project activities.

The overall results of the study are (i) the development of a standardized dataset structured accordingly 4 main scenarios (presented in detail in section 4) and specifically developed for 9 main construction segments identified in line with task 3.3, (ii) the presence of an overall interest in cooperation and open innovation approach to foster innovation, (iii) the need of funds, financial schemes, and simplified processes for certification to support innovation actions within Companies.

Lastly, this study also highlighted how the proposed services are interconnected and may be optimally scheduled to perform a comprehensive innovation process. Depending on the value chain of each envelope product and company needs, the process may be followed partially or in full.

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ABBREVIATIONS

BDM = BIM Dataset Matrix
BIM = Building Information Modelling
IFC = Industry Foundation Classes
IND = industrial partner for MEZeroE project
LCA = Life Cycle Assessment
LCC = Life Cycle Costs
LL = Living Lab
M&V = Measurement and Verification
nZEB = nearly Zero Energy Building
nEESs = nZEB Enabler Envelope Solutions
O&M = Operation and Maintenance
OIS = Open Innovation Services
PM&VL = Pilot Measurement & Verification Lines
SME = Small-Medium Enterprises

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1 Introduction

The present deliverable D3.2 aims at establishing a comprehensive framework of the activities that have been performed within Task 3.2 of WP3, that have led to the definition of a protocol for the management of BIM-based datasets and information flow in the innovation processes for the development of building envelope products and solutions. The above-mentioned Task is described in the MEZeroE Grant Agreement as follows:

Task 3.2 - BIM-based information flow management [M6-M37] POLIMI, EURAC

Working on a well-positioned on the market BIM environment POLIMI will define level of details, semantics and kind of information for BIM objects representing building envelope products, with the aim to ensure interoperability for package configuration (see T3.3). This will ensure smooth collaboration with manufacturers in light of the multi-side virtual marketplace (WP4). POLIMI will define at least 3 building archetypes in the selected BIM environment and as models for parametric simulations and standard building energy certification as contextualized in the LL countries. POLIMI will define an approach for integrating BIM objects provided by IND partners into such archetypes. EURAC and POLIMI will define a specific set of rules to manage cases when the producer accessing the virtual marketplace does not provide a BIM object in the proper format, engaging the platform team. The whole process will be standardized as BIM package configurator to be used within the project and beyond as part of the OIS3 (as described in section 1 and sub-task 2.3.3). This task works in close cooperation with T3.3 and builds upon its findings in terms of test package configuration and requirements for novel products.

In detail, **Table 1** provides a chronological breakdown of the T3.2 activities organized into six main activities listed and briefly presented following.

Table 1. Plan of the activities that have been performed within T3.2 (M1 = January 2021, M60 = December 2025)

M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20
					1.1					1.2		2.					3.		
M21	M22	M23	M24	M25	M26	M27	M28	M29	M30	M31	M32	M33	M34	M35	M36	M37	M38	M39	M40
4.			DRAFT	5.						6.					FINAL				
M41	M42	M43	M44	M45	M46	M47	M48	M49	M50	M51	M52	M53	M54	M55	M56	M57	M58	M59	M60

1. **BIM readiness level survey**
   Survey for IND partners and external SMEs to perform an SoA on BIM readiness
2. **Existing datasets for envelope solutions**
   Collection of dataset examples within the IND partners with distinct details per 3 identified building archetypes.
3. **Systematization of the previous actions**
   A critical review of the results from surveys and dataset collection to build an SoA on BIM readiness and common semantics.

4. **Dataset standardization**
   Definition of Level of Details, Level of Information, semantics and cluster of information for the implementation on the virtual marketplace.
5. **Dataset testing in LL countries**
   Application of the standardized DS for specific nEESs to Living Lab (LL) countries for the Proof of ConceptIN
6. **BIM package configurator**
   Development of a dataset configuration service as a tool (OIS3) of the virtual marketplace to support IND in composing the required MEZeroE dataset for their nEESs according to a defined protocol.

The current version of D3.2 deliverable has been structured in five major sections to provide details for the current state of the work and to envisage planning for the final activities of the task.

After the introduction of the work provided in section 1, section 2 aims at establishing a comprehensive State of the Art on the main objects of the study of Task 3.2, introducing topics like standardization (Section 2.1), management (Section 2.2) and sharing (Section 2.3) of BIM-based data.

Section 3 offers a detailed insight on the first three T3.2 activities mentioned above: methodology and results of the BIM-readiness surveys conducted among IND partners (Section 3.1) and external supporters (Section 3.2), archetypes definition and BIM-based datasets collection (Section 3.3), and a critical review and discussion on the outcomes of the state of the art and state of the practice (Section 3.4).

Based on the results of the state of the art and state of the practice, Section 4 provides in-depth coverage of the following two actions foreseen: BIM-based dataset standardization (Section 4.1), in terms of level of detail, level of information, semantics, and cluster of information to be provided; proof of concept and test of the above-mentioned MEZeroE standardized BIM dataset for a specific nEES in Living Labs (LL) countries (Section 4.2).

Finally, Section 5 presents the development process and results of a BIM-based dataset configuration service, which shall be provided as a tool of the virtual marketplace to support SMEs, and industries in general, in building the above-mentioned MEZeroE dataset for their nEESs according to a defined protocol.

2 Definitions, standards and technologies for BIM-based data

This section defines a comprehensive state of the art on BIM-based information flow management, to identify terms, standards, and procedures relating to the Building Information Modeling and currently in use to set up a clear, common, and comprehensible language for the entire supply chain of the construction sector. The ultimate scope of Task 3.2 is in fact to enhance the interoperability and the data flow management of building envelope solutions and products between different actors, such as producers, certifiers, researchers, and clients within the MEZeroE virtual marketplace.

A literature review on the topic has been conducted to structure the entire work on the most fundamental characteristics and potentialities of the BIM approach. The main results obtained from the latest existing references have been summarized following per macro areas, elements, and characteristics which authors considered mandatory and essential to be clarified and taken into consideration for the MEZeroE standardized datasets definition.

2.1 BIM (Building Information Modelling) definitions

The origins of research in data exchange and the interoperability for the construction sector can be traced back several decades with the initial goal to overcome barriers related to representation and interoperability of product and processes data for buildings, which led to the well-known diffuse acronym BIM for which several definitions are often associated. While there is a consensus on saying that BI stands for Building Information, the M is often associated to multiple translations, the most popular being Model, Modeling or Management (Eastman, 2011).

The standard ISO 23387:2020 defined in its introduction Building information modelling (BIM) as a digital process for describing and displaying information required in the planning, design, construction, and operation of constructed facilities. This approach encompasses all aspects of the built environment, including civil infrastructure, utilities, and public space.

Within the MEZeroE project BIM acronym is declined as Building Information Modelling, and from the variety of definitions available in literature, the Poljanšek's (2018) ones have been chosen as main reference because it is the most complete in term of topics connected and in line with the MEZeroE project objectives. In his Joint Research Center technical report, in fact, Poljanšek (2018) defined BIM as a digital tool disrupting the construction industry as a platform for central integrated design, modeling, asset planning running, and cooperation, which provides a digital representation of a building's characteristics in its whole life cycle and thereby holds out the promise of large efficiency gains.

2.2 The BIM-based data standardization approach

Data standardization in BIM is commonly associated to the development of the Industry Foundation Classes (IFC) which has been developed in 1994 as an open data model standard to serve the BIM interoperability needs of the construction industry. On a broader scale, being able to compare construction data across numerous built assets will help to assess greater whole-life value.

Common methodologies for modelling the physical characteristics of construction system make the BIM data set an affordable, consistent, and intuitive reference for industries and professional to use.

The BIM approach has been worldwide studied and the need of an international standard comes from the underlined need for a common language which promotes data sharing and flow with a fluent and clear communications between all the actors of the construction chain.

One of the most important BIM standards to refer for the state of the art on the topic is the ISO 19650:2018 (*Organization of information on construction works – Management of information in the use of BIM*). This is the international standard for managing information over the whole life cycle of a built asset using BIM and it defines collaborative processes for the effective management of information during the delivery and operation of built assets (from the design phase to management and maintenance).

International BIM standardization is a complex process involving many organizations: connections are not only established between the relevant ISO and CEN technical committees (such as the technical committee of European Committee for Standardisation CEN TC442 on the EU level), but also with geospatial and industrial entities as well as with international not-for-profit organization recognized as the body driver of the digital transformation of the built asset industry, buildingSMART. They oversee the development and maintenance of BIM standards, and their interactions ensure the inclusion of all actors and the completeness in term of contents as well as the smooth acceptance of adopted standards.

Figure 1 provides a summary of the main important standards currently available for the BIM standardization process highlighting the different regulations implemented at international, European and national levels.

Figure 1. Standard overview on BIM at different levels: international, European and nationals.

As anticipated above, IFC is the international standard for data sharing in the construction and asset management industries. It specifies a conceptual data schema and an exchange file format for Building Information Model data. It represents an open international standard for BIM data that is exchanged and shared among software applications used by the various participants in a built environment construction or asset management project. The ISO 16739:2013 is the standard which defines the format characteristics of the IFC for sharing data in a BIM process and buildingSMART International has ownership of the IFC standard.

More specifically, the IFC schema is a standardized data model that codifies, in a logical way the following information:

- the identity and semantics (name, machine-readable unique identifier, object type or function);
- the characteristics or attributes (such as material, colour, and thermal properties);
- and relationships (including locations, connections, and ownership);
- of objects (like columns or slabs);
- abstract concepts (performance, costing);
- processes (installation, operations);
- and people (owners, designers, contractors, suppliers, etc.).

IFC can define physical components of buildings, manufactured products, part of systems, as well as energy analysis models, cost breakdowns, work schedules.

Another important element to consider for the BIM dataset standardization identified by the state of the art on the topic are the Data Dictionaries, defined for example by Poljanšek (2018) as an important tool which contains and connects the entire world domain terminologies with internationally standardized and machine-readable concepts. The EN ISO 12006-3:2022 - *Organization of information about construction work - Part 3 Framework for object-oriented information* is the standard which defines the Data Dictionaries format and structure.

buildingSMART (bS) provides an online service of DD that hosts classifications and their properties, allowed values, units, and translations. This bSDD provides a standardized workflow to guarantee data quality and information consistency.

Besides the BIM standardization process and exchange formats diffusion, the distribution and safeguarding of data is still an ongoing challenge. Distributed Ledger Technology and Blockchains can be consider a plausible solution being able to provide quality, traceability/auditability and safe digitalization of data sets and intellectual property. However, the practical application and adoption of those technologies in the built environment requires a good understanding of tools maturity and standardization.

Celik, Petri, and Barati (2023) have recently published the results of their work which described the steps necessary to perform for the integration of a BIM data provenance model with Blockchain using construction data. The reported results underlined that collecting data utilising provenance data with Blockchain technology can benefit the construction sector in a different way. Firstly, by avoiding data losses because all aspects of the project, throughout the BIM process, will be permanently registered to the Blockchain system. Secondly, redundant documentation will be eliminated with the smart contract advantage, and the process will be digitally documented and accelerated in a Blockchain environment. Finally, the transparent approach which will derive from this procedure, it would promote confidence and communication among construction stakeholders.

2.3 Milestones and lessons learned from the state of the art

All those definitions, statements, regulations, standards and lessons learned selected from the analysis conducted in the existing literature on BIM topic, have been fundamental for the development firstly of a BIM survey between the partners to understand the current level of BIM practice and readiness for the construction sector, and secondly to define a really standardized dataset useful and international recognized by all the actors involved in the supply chain of the building envelope solutions.

The results of the state of the art contribute the T3.2 activities follow up by highlighting format, procedure and practical solutions for standardizing building envelope datasets based on BIM data flow, which can address interoperability issues of the AEC industry.

3 State of the Practice: BIM-readiness level

In the context outlined above, a specific BIM survey has been developed within Task 3.2 in close collaboration with EURAC. The main goal of the questionnaire was an in-depth investigation of the BIM data management and data flow processes to set up a more comprehensive state of the art and state of the practice on the topic, both within the MEZeroE Consortium industrial (IND) partners and in the context of possible future industrial clients that are not directly involved in the project at this stage. The final aim was to set the scene of the BIM awareness and readiness levels in the construction sector, identifying first points of discussion to better address the data sharing and innovation processes along the chain. The surveys have been delivered through Microsoft Forms as an online questionnaire with both multiple-choice and open questions, as presented in the Sections below.

3.1 Internal survey to all MEZeroE industrial partners

In the first phase, the BIM survey has been delivered only to the MEZeroE IND partners, through a first version of an online questionnaire. **Table 2** summarized questions and options for the replies.

Table 2. BIM survey, version delivered to all the MEZeroE Consortium industrial partners

#	Survey questions (with eventual options given)
1	Does your company currently have any BIM objects representing the building envelope marketed products? • Yes, BIM objects can be provided for all the building envelope marketed products; • Yes, BIM objects can be provided for most building envelope marketed products; • Yes, BIM objects can be provided only for some building envelope marketed products; • No
2	Does the company intend to develop and provide any BIM objects representing the building envelope marketed products in the near future? • Yes, for all building envelope marketed products; • Yes, for most building envelope marketed products; • Yes, only for some building envelope marketed products; • No
3	If BIM objects are already provided by the company, or if the company intends to develop them in the future, which BIM Level of Detail (LOD) has been achieved/ would you aim to achieve? • *LOD 100 - Concept Design: the 3D model has been developed to represent the information on a basic level. Thereby, only conceptual model creation is possible in this stage. Parameters like main dimensions, area and volume are defined;* • *LOD 200 - Schematic Design: a general model where elements are modelled with approximate quantities, size and shape. Non-geometric information can also be attached to the model elements;* • *LOD 300 - Detailed Design: accurate modelling where elements are defined with specific assemblies, precise quantity, size and shape. Non-geometric information can also be attached to the model elements;* • *LOD 350 - Construction Documentation: it includes model details and elements that represent how the elements of the building envelope product interface with various systems and other building elements with graphics and written definitions;* • *LOD 400 - Fabrication & Assembly: model elements are modelled as specific assemblies, with complete fabrication, assembly, and detailing information in addition to precise quantity, size and shape. Non-geometric information can also be attached to the model;* • *LOD 500 - As-Built: elements are modelled as constructed assemblies for maintenance and operations. In addition to actual and accurate size, shape and quantity, non-geometric information is attached to modelled elements.*

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4	Main data that the company supplies/would supply through the BIM objects: • Size • Installation tolerances • Weight • Price • Optimal performance criteria • Expected lifespan • Installation time on building site • End-of-life reuse/recycling potential • Other
5	Is there any product data that is not usually supplied through the BIM objects that the company believes would be useful to share? Which one/ones?
6	How relevant does your company consider having BIM objects for building envelope marketed products? (1 = not relevant at all, 5 = very important) • 1 • 2 • 3 • 4 • 5
7	Does the company have resources to create BIM objects representing the building envelope marketed products? (e.g., a team fully dedicated to it)
8	Which % of the company is involved?
9	Is the company self-sufficient in the process of the creation? (e.g., an external party is involved for the creation of BIM objects)
10	Which are the main added values of developing and supplying BIM objects for building envelope marketed products? • Market competitivity • Satisfaction of market demand • Compliance with regulations • Other
11	How do you currently manage the BIM data sharing process?
12	Which are the main difficulties and needs of the company on the "BIM development" process?

In the second phase, instead, a dedicated survey has been delivered only to three short-listed MEZeroE IND partners (Company 1, Company 2 and Company 3), selected according to 4 Key Performance Indicators (**Figure 2**) for a deeper investigation in order to tune the state of the art. In particular, the selection among the different MEZeroE IND partners has been conducted on the basis of the respective answers to the previous survey (presented in Section 3.1.1), according to the following KPIs:

- **KP 1**: current BIM readiness;
- **KP 2**: openness to future BIM development;
- **KP 3**: BIM-dedicated internal resources;
- **KP 4**: BIM-based data management knowledge.

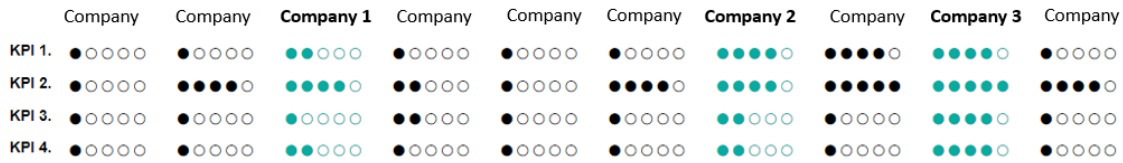

Figure 2. Selection of three short-listed IND partners according to the pre-defined KPIs

In detail, the questions and eventual options given to the short-listed IND partners for the deep investigation phase are presented in **Table 3** below, according to the three main sections of the interview: (i) company profile, (ii) BIM readiness level, and (iii) BIM-based datasets and data structure.

Table 3. Phase-2 BIM survey, version delivered to short-listed MEZeroE Consortium industrial partners

#	Survey questions (with eventual options given)
	Section 1 – Company Profile
1	Company name.
2	Primary area of activity: • Windows/Glazing; • Insulation materials and systems; • PV panels and systems; • Other. • Finishes/Coatings/ Cladding systems; • Joints/Connectors; • Building systems and automation; • Membranes/Tapes; • Prefabrication of envelope components; • Green roofs/façades;
3	Number of employees: • *1-10;* • *10-50;* • *50-250;* • *250-1000;* • *1000+.*
4	Headquarters and production area.
5	Market area.
	Section 2 – BIM Readiness Level
6	BIM vision and objectives (CURRENT, TARGET): • No BIM vision or objectives defined; • Basic BIM vision or objectives established; • BIM vision addresses mission, strategy, and roles; • BIM objectives are specific, measurable, relevant, and attainable; • BIM vision and objectives are regularly revisited, maintained and updated.
7	BIM expertise (CURRENT, TARGET): • No BIM roles and responsibilities assigned within the company; • Dedicated BIM responsible, who is technically skilled and motivated; • Core BIM responsible team, that develops the BIM strategy and guides the implementation of BIM within the company.
8	BIM knowledge and training (CURRENT, TARGET): • No education programs; • Ad hoc education as needed for all personnel that may interact with BIM; • Formal presentations on what is BIM and its benefits for the company; • Regularly conducted employee education sessions or training programs; • Education and training is seamlessly improved through lessons learned within the company.
9, 10	BIM-based data uses (CURRENT, TARGET): R&D of the products/ solutions: • No BIM uses identified; • Minimal BIM uses, with some exchange and coordination between teams; • Extensive use of BIM. Production line: • No BIM uses identified; • Minimal BIM uses, with some exchange and coordination between teams; • Extensive use of BIM. Certificators, research centers, labs: • No BIM uses identified; • Minimal BIM uses, with some exchange and coordination between teams;

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	Designers, professionals, construction site	• No BIM uses identified;	• Minimal BIM uses, with some exchange and coordination between teams;	• Extensive use of BIM.
	Client or marketing	• No BIM uses identified;	• Minimal BIM uses, with some exchange and coordination between teams;	• Extensive use of BIM.
Section 3 – BIM-based Datasets and Data Structure				
11	Software and file extension used to manage BIM-based data.			
12	Methodology and format used to structure BIM-based datasets.			
13	Level of Information (LoI) of the BIM-based datasets:			
	• Stage 0 – Geometry; • Stage 1 – Performance Requirements;	• Stage 2 – Concept Design; • Stage 3 – Developed Design;	• Stage 4 – Technical Design; • Stage 5 – Coordinated Design;	• Stage 6 – Coordinated Design for Offsite Manufacture.

3.1.1 Results of the internal survey

This section presents and discusses the final results of the two BIM surveys that have been complied by the MEZeroE IND partners, in order to integrate and complete the state of the art on the topic developed within the present chapter. The main conclusions that have been drawn from the first phase of survey are the following:

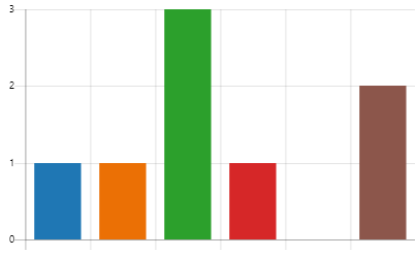
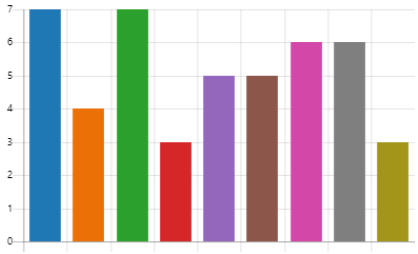
- Half of the IND partners currently do not have any BIM object for their marketed products; most of them intend to develop them for most/all their marketed products in the near future.
- Half of the IND partners provide/would provide LOD 300 – Detailed Design or less; three of them would reach the maximum Level of Detail: LOD 500 – As-built.
- Most of the IND partners consider it important/very important having BIM objects for their products, mainly for the satisfaction of the market demand and competitive purposes.
- Half of the IND partners has no internal resources to create BIM objects or an in-place process to manage the exchange of BIM data. Two partners are self-sufficient in the process of BIM creation and only one of them has a team fully dedicated.

Moreover, the following difficulties and needs have been identified:

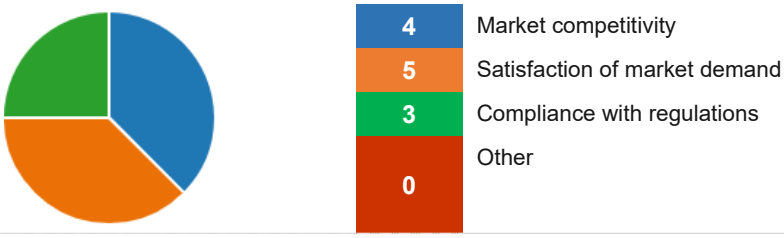
- lack of knowledge and resources for the development of skills internally;
- lack of knowledge on demands and standards compliance;
- data quantity and management, considering the fast development of products.

The complete list of results of the first BIM survey conducted within all the MEZeroE IND partners is presented in **Table 4**.

Table 4. Results of the BIM survey delivered to all the MEZeroE Consortium industrial partners

#	Survey questions and respective results	
1	Does your company currently have any BIM objects representing the building envelope marketed products?	
		2 Yes, BIM objects can be provided for all the building envelope marketed products 2 Yes, BIM objects can be provided for most building envelope marketed products 1 Yes, BIM objects can be provided only for some building envelope marketed products 5 No
2	Does the company intend to develop and provide any BIM objects representing the building envelope marketed products in the near future?	
		4 Yes, for all building envelope marketed products 3 Yes, for most building envelope marketed products 1 Yes, only for some building envelope marketed products 2 No
3	If BIM objects are already provided by the company, or if the company intends to develop them in the future, which BIM Level of Detail (LOD) has been achieved/ would you aim to achieve?	
		1 LOD 100 - Concept Design 1 LOD 200 - Schematic Design 4 LOD 300 - Detailed Design 1 LOD 350 - Construction Documentation 0 LOD 400 - Fabrication & Assembly 3 LOD 500 - As-Built
4	Main data that the company supplies/would supply through the BIM objects:	
		9 Size 4 Installation tolerances 9 Weight 4 Price 5 Optimal performance criteria 6 Expected lifespan 8 Installation time on building site 6 End-of-life reuse/recycling potential 4 Other (*Thermal properties - Product description - CE mark - Certification/s - Transport information - Quantities - Coating performance - Operation and services - Tracking codes)*

5	Is there any product data that is not usually supplied through the BIM objects that the company believes would be useful to share? Which one/ones? *Multilingual translation - Automatic updating of files - Technical aspects of flexible joints - Performance data - EPD - LCA - LCC - Link to other products*								
6	How relevant does your company consider having BIM objects for building envelope marketed products? (1 = not relevant at all, 5 = very important)								
	2	Not relevant at all	1	Not very relevant	0	Neutral	4	Important	3	Very important
7	Does the company have resources to create BIM objects representing the building envelope marketed products? (e.g., a team fully dedicated to it)								
	4	No	2	No, external party involved	3	Small team (1-3 people)	1	Team fully dedicated	
8	Which % of the company is involved?								
	3	0%	5	< 10%	2	≥ 10%			
9	Is the company self-sufficient in the process of the creation? (e.g., an external party is involved for the creation of BIM objects)								
	3	No	5	No, external party involved	2	Yes			
10	Which are the main added values of developing and supplying BIM objects for building envelope marketed products?								



11	How do you currently manage the BIM data sharing process?								
	5	Not managed	2	Through the website	1	Manually	1	Manually at the moment, through PIM in the future	1	Internal Common Data Environment acts as sharing data hub/ interface with construction sites and clients
12	Which are the main difficulties and needs of the company on the “BIM development” process? *BIM knowledge and understanding, but skills are not sufficient - No internal dedicated resources - Data updating, considering the fast development of products - Too many different products type and market needs - Interaction between objects and existing BIM solutions - Lack of BIM knowledge - Lack of knowledge on demands and standards - Time consuming - Getting used to the new system workflow - Standards compliance and priority*								

As per the second phase of survey, instead, it focused on the three short-listed MEZeroE IND partners, and the main conclusions are as follows:

- The three IND partners selected are large companies with quite varied areas of activity. The headquarters are located in Italy and Denmark, while the market area spans from Italy to Europe to the whole world.

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- All three IND partners in general aim to achieve higher targets and goals with regards to both their BIM-related expertise and knowledge, highlighting their interest and faith in the BIM potential.
- In general, all three participants aim to maximize the use of BIM-based data.
- The main software used to manage BIM-based data is Revit, and the main file extensions are .rfa and .ifc.
- As regards the methodology and format used to structure BIM-based datasets, one company has a custom internal dataset, another company uses product information and data management systems, while the third and last company leaves the task to external developers.
- In general, all IND partners aim at high Levels of Information, greater or equal to "Stage 5 – Coordinated Design".

The complete list of results of the second dedicated BIM survey conducted within the three short-listed MEZeroE IND partners is presented in **Table 5**.

Table 5. Results of the BIM survey delivered to short-listed MEZeroE Consortium industrial partners

#	Survey questions and respective results							
	Section 1 – Company Profile							
1	Company name. *Company 1 – Company 2 – Company 3*							
2	Primary area of activity:							
	1	Windows/ Glazing	**0**	Insulation materials and systems	**0**	PV panels and systems	**1**	Other: *safety systems*
	0	Finishes/ Coatings/ Cladding systems	**1**	Joints/Connectors	**1**	Building systems and automation		
	1	Membranes/ Tapes	**1**	Prefabrication of envelope components	**0**	Green roofs/ façades		
3	Number of employees:							
	0	1-10	**0**	10-50	**0**	50-250	**2**	250-1000
	1	1000+						
4	Headquarters and production area. *Italy – Italy – Denmark + Poland, Germany, Denmark, France, Czech Republic, Hungary (production sites)*							
5	Market area. *Worldwide – United Kingdom, Italy, United States of America – Europe*							
	Section 2 – BIM Readiness Level							
6	BIM vision and objectives (CURRENT, TARGET): *From (b) to (c) – From (e) to (e) – From (c) to (e)*							
7	BIM expertise (CURRENT, TARGET): *From (a) to (b) – From (c) to (c) – From (b) to (c)*							
8	BIM knowledge and training (CURRENT, TARGET): *From (c) to (d) – From (d) to (e) – From (c) to (d)*							
9, 10	BIM-based data uses (CURRENT, TARGET):							
	R&D of the products/solutions	*From (a) to (b) – From (b) to (c) – From (c) to (c)*						
	Production line	*From (a) to (b) – From (a) to (b) – From (c) to (c)*						
	Certificators, research centers, labs	*From (a) to (b) – From (b) to (c) – From (c) to (c)*						
	Designers, professionals, construction site	*From (b) to (c) – From (c) to (c) – From (b) to (c)*						
	Client or marketing	*From (b) to (c) – From (c) to (c) – From (b) to (c)*						

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Section 3 – BIM-based Datasets and Data Structure	
11	Software and file extension used to manage BIM-based data. *Revit (2x) – Tekla – Archicad – Allplan – Hsbcad – Naviswork – Fast Field – Custom internally developed tools, .rfa (2x) – .ifc (2x) – .rvt – .nwd*
12	Methodology and format used to structure BIM-based datasets. *Done by external developers – Custom internal dataset – PIM system/DMS/BIM object*
13	Level of Information (LoI) of the BIM-based datasets: *From 4 to 5 – From 6 to 6 – From 5 to 5*

3.2 Survey to external Small and Medium Enterprises

This section presents and discusses the results of the BIM survey that has been delivered to 10 external companies which produced products for building envelope, to integrate and complete the state of the art on the topic developed within the present chapter.

For this purpose, it was decided to keep the same structure of Microsoft Form survey as previously presented in **Table 3**. Contrary to what was done as referred to the short-listed MEZeroE IND partners, although, the participants have been involved through three main channels:

- direct contact, from the POLIMI team or from other MEZeroE partners (e.g., e-mail, phone);
- social media dissemination, on the POLIMI team accounts and on the MEZeroE one (e.g., LinkedIn);
- MEZeroE First Stakeholder community event, held online on March 10th, 2022.

The main conclusions that have been drawn from this last phase of survey are the following:

- The participants are mainly large companies with extremely varied areas of activity. All the participants have headquarters in Europe, and 59% of them specifically in Italy. The market areas span from Italy to Europe to the whole world.
- Most of the companies (76%) currently have either no/basic BIM vision or objectives defined. Only 47% of the companies aims at specific and measurable or regularly updated BIM objectives.
- Half of the companies (53%) currently has no BIM roles and responsibilities assigned. Only 35% of the companies aim at establishing a core BIM team guiding the implementation of BIM within their company, while the 53% of them would settle for having only a dedicated BIM responsible.
- Half of the companies (47%) currently have no training programs related to BIM. As refers to their targets, 35% of the companies would settle for formal presentations to introduce BIM, while 41% would set up regular education sessions or training programs for their employees.
- BIM-based data uses:
    - R&D of the products/solutions: 76% of the companies currently have no BIM uses, and half of them have no interest in improving it; only 24% of the companies aims to reach an extensive use of BIM-based data.
    - Production line: 88% of the companies currently has no BIM uses, and 67% of them have no interest in improving it; only 12% of the companies aims to reach an extensive use of BIM-based data.
    - Certifiers, research centres, labs: 94% of the companies currently have no BIM uses, and 63% of them have no interest in improving it; none of the companies aims to reach an extensive use of BIM-based data.

  - Designers, professionals, construction site: 63% of the companies currently have minimal BIM uses, and 53% of the overall number of participants aim to reach an extensive use of BIM-based data.
  - Client or marketing: 47% of the companies currently have no BIM uses, and of the overall number of participants most of the companies (53%) aim to reach only a minimal use of BIM-based data, while only 35% would reach an extensive use of it.
- The main software used to manage BIM-based data is Revit, while other tools mentioned are Dynamo and Orgadata. The main file extensions used to manage BIM-based data are .rvt, .rfa and .ifc.
- Companies provided no insight on the methodology and format used to structure BIM-based datasets. Some companies are not in charge of the methodology, being assigned to external third parties, while others simply stated that the process is done through Revit Families.
- 47% of the companies currently use only a Level of Information “Stage 0 – Geometry”, and 38% of them has no interest in improving it. The most common target for the companies in terms of Level of Information is “Stage 1 – Performance Requirements” (29%). Only 12% of the participants aims at reaching the maximum Level of Information “Stage 6 – Coordinated Design for Offsite Manufacture”.

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4 Towards the definition of a MEZeroE standardized BIM dataset

Based on the previous actions, the present section discusses the definition of a dedicated MEZeroE standardized BIM dataset, developed within Task 3.2 in close collaboration with EURAC. The main goal of this action is the identification of a common and standardized protocol for the management of BIM-based datasets for envelope products and systems, to be finally implemented into the virtual marketplace as part of the OIS3 through the service called “BIM package configurator” (Section 0 of the present document).

The process that has been followed for that purpose can be broken down in three main actions: (i) definition of the base structure of the dataset, in order to include all possible construction segments as refers to envelope products and solutions, and populating of such structure also with the support of the MEZeroE Consortium partners (Section 4.1); (ii) standardization of the previous activities, finalizing the MEZeroE dataset in compliance with the relevant standards if applicable (Section 0); and (iii) validation of such MEZeroE standardized BIM dataset (Section 0).

4.1 Structuring and populating the MEZeroE BIM dataset

Since this preliminary stage, the MEZeroE BIM dataset has been structured as a working matrix, hence addressed as “BIM Dataset Matrix” (BDM) within the Consortium. To build this matrix, in close collaboration with the activities of Task 3.3 the building envelope products and solutions have first been broken down and clustered into nine key construction segments: (i) multifunctional, multilayer façade systems, (ii) cladding systems, (iii) coatings and finishes, (iv) glazing and frames, (v) membranes, (vi) joints and connectors, (vii) insulation, (viii) green roofs and green façades, and (ix) active solar energy systems.

To identify the main contributors within the Consortium, each MEZeroE industrial (IND) partner has been linked to the most relevant construction segment/s, as shown in **Figure 3**. The activity has been conducted according to their products of interest within the project, as defined in the MEZeroE Grant Agreement.

			Construction segments								
			1	2	3	4	5	6	7	8	9
	Products of IND partners, to be pushed in the market with the highest possible TRL (Technology Readiness Level):	IND Partner	Multifunctional, multilayer façade systems	Cladding systems	Coatings and finishes	Glazing and frames	Membranes	Joints and connectors	Insulation	Green roofs and green façades	Active solar energy systems
1	Multifunctional Façade System	Focchi	1			2					
2	Comprehensive comfort and IEQ-based skylights	Velux				1					
3	Building integrated natural ventilation solutions	Window Master	1			1					
4	Integration of PV in an interwoven steel wire mesh, enclosed in a mosaic of brick to control sunlight for energy production and lighting	Flexbrick		1							1
5	Lightweight, easy-to-install Organic BAPV film for existing roofs functionalization	Heliatek			1						1
6	Glass integrated Organic BIPV elements for façade integration	Heliatek	2								1
7	Durable Advanced Functional Coatings for self-cleaning and air-purification	Tecnan			1						
8	Advanced Nanomaterials for Energy Efficient Glazing Systems	Tecnan			1						
9	Flexible structural connectors	Flex&Robust						1			
10	Tailored roof/facade smart membranes	Rothoblaas					1				
11	Tailored roof/facade sealing tapes	Rothoblaas					1				
12	Tailored roof/facade fastening system	Rothoblaas						1			
13	Sustainable prefab wooden all-in-one envelope components	Riko Hise	1								
14	Sustainable prefab wooden external cladding components	Riko Hise		1							
15	(bio)Polyurethane insulation foams	Indresmat							1		
16	Foamed (bio)polyurethane frames	Indresmat				1			1		

	Legend
1	Main construction segment in MEZeroE
2	Secondary construction segment in MEZeroE

Figure 3. Link between the industrial (IND) partners’ products of interest within MEZeroE and their respective construction segment

Besides these nine construction segments, which later represent the columns of the BIM Dataset Matrix (BDM), the next step for the structuring of the working matrix was the identification of major property

categories, to collect and cluster all the relevant product information and properties. Thirteen main clusters have been identified and have populated the rows of the BDM (**Figure 4**).

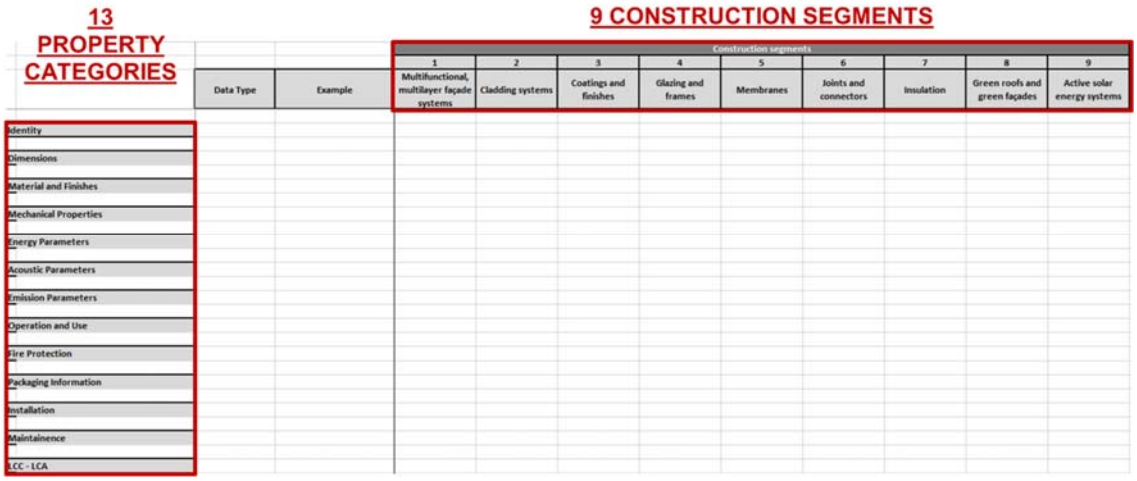

Figure 4. Overall structure of the MEZeroE BIM Dataset Matrix (BDM)

For each of these clusters, the parameters were compiled to encapsulate information regarding the geometrical, technical, and structural specifications of the products (**Figure 5**). The purpose of these parameters was the four scenarios as described following.

There is no unique standard that defines these parameters to cluster the information specifically for the building envelope products. To compile the necessary parameters for the purpose of the project, the professionals in the field of the different property categories were consulted, and open standards like IFC. Moreover, existing BIM objects of the building envelope products on online platforms like bimobject.com, bimstore.com and nationalbimlibrary.com, were also referred. For each parameter, further details like the data type (alphanumeric, cost, numeric with units, etc.) and an example of the information is also indicated the adjacent columns.

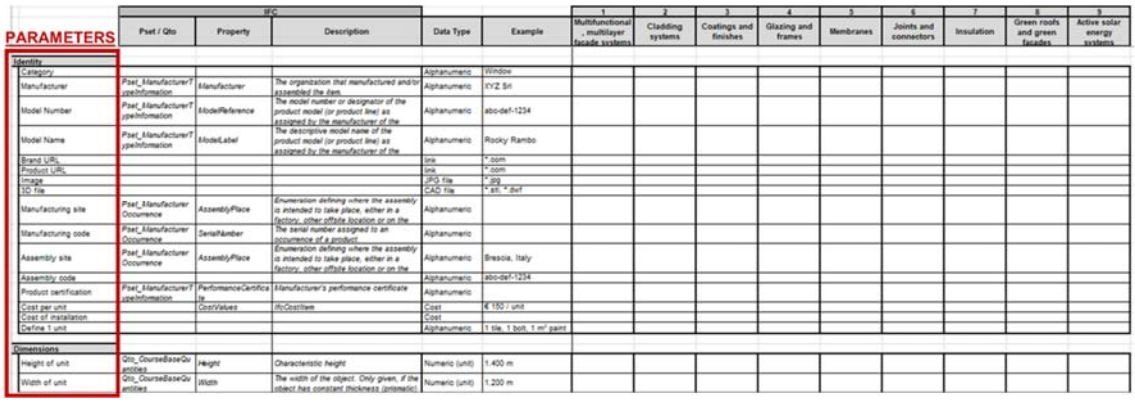

Figure 5 A sample of parameters and additional details in the BDM

An additional mapping of the compiled parameters with an open standard for the exchange of building data models using the Industry Foundation Classes (IFC) has been done. The parameters were linked to the IFC Property sets and Property names along with their description for all those parameters whose counterparts were already defined in the IFC 4.0 version. This is done to consider the possibility of

integrating these parameters into an open-source format so they can be used for exchanging information within a project team and between BIM authoring software used for design, construction, procurement, maintenance, and operation.

The resulting tentative matrix was then extended to four scenarios, according to the most recurring uses of such data and information. This step was, in fact, thought to be very important for a successful standardization of the MEZeroE BDM also in view of a more effective selection and filtering of the product data to be shared, according to both the final user as well as the final use of such information. The key scenarios can be summarized as follows:

- Scenario A – Marketing and Communication;
- Scenario B – Test and Monitoring;
- Scenario C – Certification Process;
- Scenario D – Installation, Monitoring, Operation and Maintenance (O&M).

Subsequently, the resulting BDM has been shared with all MEZeroE partners within a dedicated workshop, held during the 3rd Project Meeting (Bolzano – May 23rd-24th, 2022). The goal of the workshop was to not only present the work to the rest of the Consortium, but to specifically ask for their contributions in order to validate and standardize the tentative working matrix. Each MEZeroE partner was assigned a dedicated Excel worksheet and given detailed instructions to fill it in according to their expertise and needs.

More in detail, the instructions and activity were specifically tailored according to the partners' typology, standpoint and expertise, differentiating between Industrial (IND) partners, Pilot Measurement and Verification Lines (PM&VL) leaders, and Measurement and Verification (M&V) partners. In terms of scenarios to be validated, for example, IND partners were asked to contribute to Scenarios A-D, PM&VL leaders to Scenarios B-C, while M&V partners to Scenario D.

For each given scenario but focusing only on the relevant construction segment/s, the MEZeroE partners were asked to fulfill the matrix by assigning a value ranging between 1 and 4 to every single product information, listed in the different rows of the Excel worksheet. The meaning of the above-mentioned values to be assigned was presented in a dedicated legend, which was also tailored according to the different Consortium partners typology and perspective as summarized in **Table 6** below.

Table 6. Dedicated legend of the values to be assigned in the BDM according to the Consortium partner typology and perspective

Value	IND partners	PM&VL leaders	M&V partners
1	Data available and usually provided.	Mandatory.	Mandatory.
2	Data available but usually not provided.	Good to know.	Good to know.
3	Data not available.	Can be provided as output.	Can be provided as output.
4	-	Not needed nor provided.	Not needed nor provided.

All the contributions and feedback provided by the different Consortium partners were then collected, critically analyzed, and merged to optimize and successfully standardize the MEZeroE Building Information Dataset. This process will be further detailed in the following section.

4.2 Development of the MEZeroE standardized BIM dataset for nEESs

Once all the partners had filled out the working matrixes provided to them, following the dedicated legends of the values described in the previous section, the results were collected to develop a unique standardized datasets per each of the four main scenarios and then further respectively detailed them per each of the nine construction segments in order to provide a complete standardization process and to implement those results into the Virtual Marketplace through the implementation of the MEZeroE BIM package configurator as open innovation service.

Firstly, a distinct analysis of the 4 scenarios' results has been conducted, filtering them for the nine construction segments. A series of computational matrixes were structured, one for each construction segment, to filter and select which parameters were relevant to be shared within the standardized matrix, based on a cross-comparison of the feedback provided by the partners.

The values indicated in the **Table 6** have been used as reference to identify the parameters to be included in the standardized matrix, following these criteria:

- The parameter has been considered as "mandatory" for the standardized MEZeroE BDM if at least one of the PM&VL leaders or M&V partners considered it as "mandatory" in their BDM feedback population assigning value 1 according to the legend of Table 6.
- The parameter has been considered as "provided as output" for the standardized MEZeroE BDM if at least one of the PM&VL leaders or M&V partners declared them as "provided as output" in their BDM feedback population assigning value 3 according to the legend of Table 6.
- The parameter has been considered as "good to know" for the standardized MEZeroE BDM if at least two of the PM&VL leaders or M&V partners considered it as "good to know" in their BDM feedback population assigning value 2 according to the legend of Table 6.

The parameter has been considered as "data available and usually provided" for the standardized MEZeroE BDM if at least one of the IND partners considered it as "data available and usually provided" in their BDM feedback population assigning value 1 according to the legend of Table 6. The parameters were then evaluated in the computational matrixes based on the criteria, following a binary evaluation. Each of them received a value of 1 if they stood in at list one of the criteria mentioned above, 0 if they didn't, as shown in **Figure 6.**

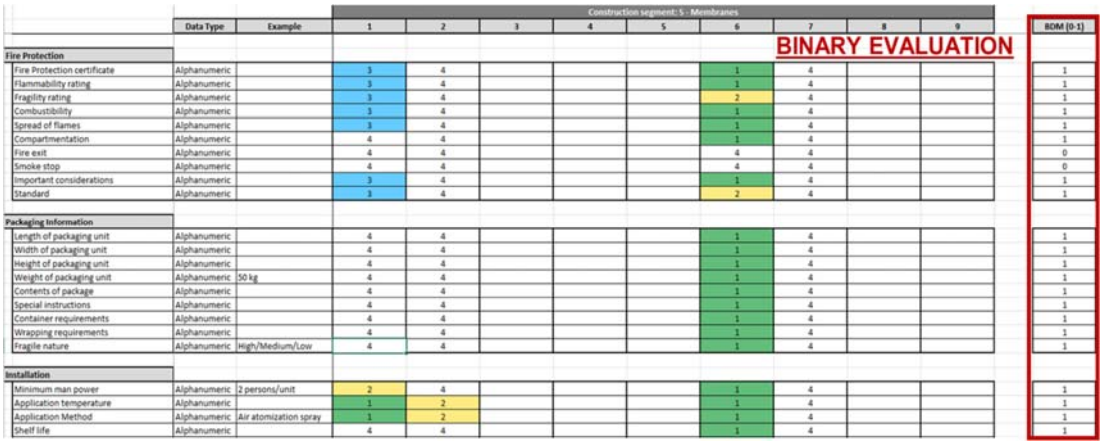

Figure 6 A sample of binary evaluation of the parameters in a working matrix

For the Scenario A, the contributions reviewed were provided by IND partners (**Figure 7**). Every partner contributes for the construction segment/s that were linked to them, as shown in **Figure 3**.

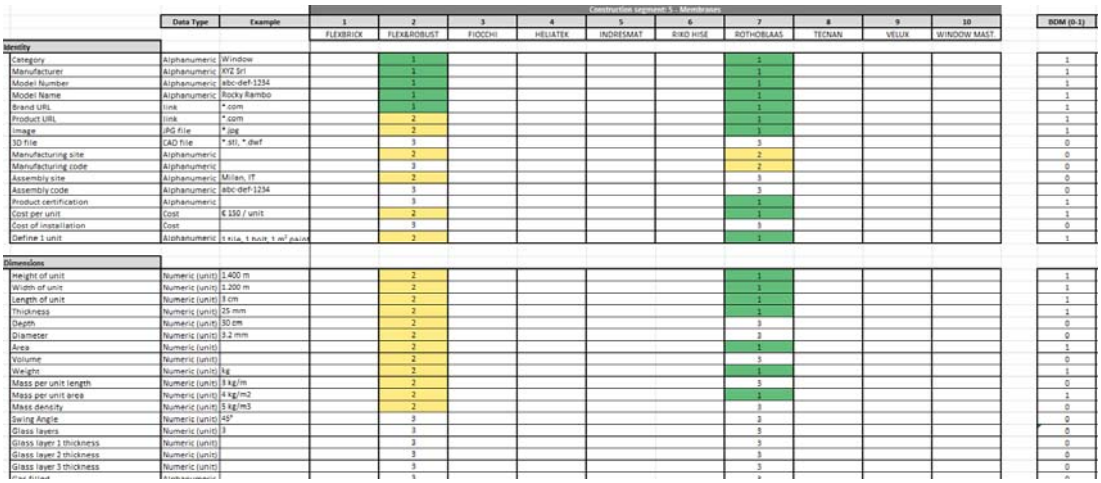

Figure 7 A sample of a working matrix for the Scenario A

The cross-comparison of the feedback showed that the IND partners mostly provide the parameters for the categories: Identity and Energy parameters. The category with fewer parameter requested to be included in the standardized dataset is Acoustic Property.

For the Scenarios B-C, feedback was provided by the Pilot Measurement and Verification Lines (PM&VL). Before starting to analyze the results, a second round of feedback of the new indicators proposed by the PM&VL leaders was requested, to verify, if necessary, their integration into the MEZeroE standard datasets. The second round of feedback led to a new properties' category "durability" which was added to the thirteen original categories (**Figure 4**) that were initially identified.

The final list of categories of the BDM is as following: (i) identity, (ii) dimensions, (iii) material and finishes, (iv) mechanical properties, (v) energy parameters, (vi) acoustic parameters, (vii) durability, (viii) emission parameters, (ix) operation and use, (x) fire protection, (xi) packaging information, (xii) installation, (xiii) maintenance, and (xiv) LCC - LCA.

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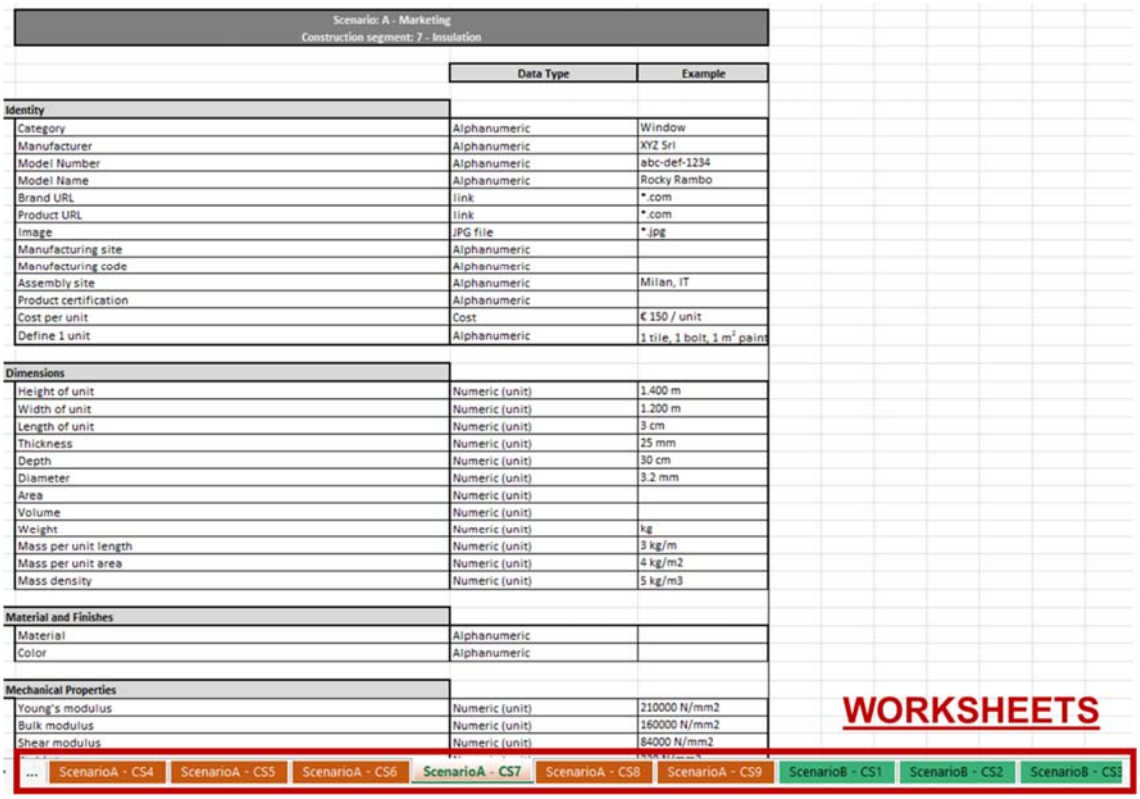
Contrary to the Scenario A, in the Scenarios B-C most of the indicators were relevant by the PM&VL leaders for the standardization of the MEZeroE BDM. Finally, the contributions for the Scenario D were provided by both the IND and Measurement and Verification (M&V) partners. These two partners' typologies utilized two different legends to evaluate the indicators. For this reason, the computational matrixes were divided into two worksheets, one for each of partners' typologies, to analyze the feedback.

The results from the two worksheets were than filtered and merged into a final binary evaluation to determine which parameters were relevant to be shared within the standardized matrix. Once all the contributions were analyzed, an Excel file was created in which all the results were merged to optimize and successfully standardize the MEZeroE BDM. Different worksheets were dedicated for each Scenario and each construction segment, as shown as an example in **Figure 8**.

The completed MEZeroE standardized BIM dataset aims to provide a standardized dataset of digitalized information for the envelope products and systems according to the data purposes corresponding to the four identified scenarios.



Scenario: A - Marketing
Construction segment: 7 - Insulation

	Data Type	Example
Identity		
Category	Alphanumeric	Window
Manufacturer	Alphanumeric	XYZ Srl
Model Number	Alphanumeric	abc-def-1234
Model Name	Alphanumeric	Rocky Rambo
Brand URL	link	*.com
Product URL	link	*.com
Image	JPG file	*.jpg
Manufacturing site	Alphanumeric	
Manufacturing code	Alphanumeric	
Assembly site	Alphanumeric	Milan, IT
Product certification	Alphanumeric	
Cost per unit	Cost	€ 150 / unit
Define 1 unit	Alphanumeric	1 tile, 1 bolt, 1 m² paint
Dimensions		
Height of unit	Numeric (unit)	1.400 m
Width of unit	Numeric (unit)	1.200 m
Length of unit	Numeric (unit)	3 cm
Thickness	Numeric (unit)	25 mm
Depth	Numeric (unit)	30 cm
Diameter	Numeric (unit)	3.2 mm
Area	Numeric (unit)	
Volume	Numeric (unit)	
Weight	Numeric (unit)	kg
Mass per unit length	Numeric (unit)	3 kg/m
Mass per unit area	Numeric (unit)	4 kg/m2
Mass density	Numeric (unit)	5 kg/m3
Material and Finishes		
Material	Alphanumeric	
Color	Alphanumeric	
Mechanical Properties		
Young's modulus	Numeric (unit)	210000 N/mm2
Bulk modulus	Numeric (unit)	160000 N/mm2
Shear modulus	Numeric (unit)	84000 N/mm2

Figure 8 Overall of the MEZeroE BDM standardized matrix Excel file

The final goal of this action is the development of a common and standardized protocol to be implemented into the virtual marketplace as part of the OIS3 through the service called "BIM package configurator", to optimize the communication flow between different stakeholders.

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4.3 Validation of the MEZeroE standardized BIM dataset

At the present stage of the Task 3.2, this section has been drafted as a plan for the next steps.

The goal of this activity is to test and validate the MEZeroE standardized BIM dataset defined in Section 0 above. Considering the ongoing activities in the other WPs and Tasks, the most effective solution individuated for the validation foresees a dual approach: applied and virtual.

The validation of the BDM will be based on the four scenarios in which is structured the matrix (A – Marketing and Communication, B – Test and Monitoring, C – Certification Process, D – Installation, Monitoring, Operation and Maintenance (O&M)).

The dual approach virtual and applied will be used only to cover the boundary conditions of 3 building archetypes as written in the GA.

- Scenario B, C and D will each be verified per one archetype, matching 1 archetype per 1 scenario.
- Scenario A, referring to Marketing and Communication, it could be independent by building archetype, so it will be validated matching the characteristics of BIM objects example provided within the OIS1 service.

The applied approach for validation will refer to the case of the Living Lab (LL) in which there is the possibility to test the BDM in relation to a real building to validate the dataset for the building itself.

While for the virtual approach, the building archetype won't be real but a building model, on which, for example, one PM&VL after having verified the datasets corresponding to a specific case (Construction Segment) and scenario (i.e. test and monitoring SC. B or certification SC.C) it will make a second level of validation trying to verify if a BIM object of similar products, provided by OIS 1, comprehend all the data listed in the worksheet and it can be used for setting up respective simulation study.

After a first round of brainstorming with task leaders of WP3 and OIS1 responsible partners, the current proposal of combination between scenarios, archetypes, and ongoing activities within the project, they are summarized in **Table 7.**

Table 7. Summary of the variables considered for the BDM validation through scenarios and archetypes.

VALIDATION	Archetype 1 – PM&VL (V or A)	Archetype 2 – PM&VL (V or A)	Archetype 3 – LL (A)	In relation to BIM objects of OIS 1
Scenario A				Marketing and Communication
Scenario B	Test and Monitoring			
Scenario C		Certification Process (linked to T3.6)		
Scenario D			Installation, Monitoring, Operation and Maintenance	

The detailed results of validation and the overall combinations will be provided in the D3.2 final version.

5 MEZeroE BIM package configurator

5.1 Introduction to the BIM package configurator

The OIS3 BIM Package Configurator service offers to nZEB Enabler Envelope Solutions (nEESs) manufacturers the minimum digitalized information to be included in a product dataset according to the relevant construction segments and for the specific scope (i.e., product marketing and communication, product testing and monitoring within the PM&VLs, product certification, product installation/ operation/maintenance).

5.2 Scope of the BIM package configurator

The main scope of the OIS3 BIM Package Configurator service, accessible through the MEZeroE web-based platform, is to provide the users with a minimum standardized dataset that allows the users to collect the digitalized information about envelope products/systems/components, according to the respective construction segments and to the relevant scenarios listed below:

- Marketing and communication;
- Test and monitoring;
- Certification process;
- Installation, monitoring, operation, and maintenance.

The service neither offers nor provides the clients any BIM objects of their products, it will only propose guidelines, references, and some examples of BIM objects as developed within the OIS1.

5.3 Objectives for the BIM package configurator

The objective of the service is to support the MEZeroE Marketplace users by providing:

- Evaluation of their BIM-readiness level, as well as suggestions on how to improve it by following the MEZeroE validated dataset requirements, offering also the support of existing BIM objects examples provided by OIS1;
- Guidelines and information on how to create a BIM-object of their product in terms of digitalization of the respective data and information according to a common standard dataset.

5.4 Client inputs for the BIM package configurator

The following inputs are required from the clients to execute the service within the MEZeroE web-based platform:

- construction segment/s for the product or system:
  - multifunctional, multilayer façade systems;
  - cladding systems;
  - coating and finishes;
  - glazing and frames;
  - membranes;
  - joints and connectors;
  - insulation;
  - green roofs and green façades;

  - active solar energy systems.
- relevant scenario:
  - marketing and communication;
  - test and monitoring;
  - certification process;
  - installation, monitoring, operation and maintenance.

The is action will allow the Platform's user/client to visualize the filtered results in terms of minimum digitalized information to be included in the standardized dataset for nEESs.

5.5 Contents of the deliverable

The deliverable related to the BIM Package Configurator will consist of the following parts:

- Overall presentation of the MEZeroE standardized dataset methodology;
- Evaluation of the client's BIM-readiness level based on the results of the MEZeroE BIM readiness questionnaire, available on the MEZeroE platform and performed by partners or by the client itself;
- Guidelines for the BIM-object creation of the client's product specifying the steps and data flow necessary for the digitalization of the respective data and information according to the MEZeroE standardized dataset. The suggested planning is based on an agile and modular schedule, which means that companies can change the BIM digitalization process and tasks according to the outgoing developments of their products;
- Features web: interactive features explaining the identified suggestions on how to improve the BIM readiness level by following the MEZeroE validated dataset requirements;
- A report explaining all the processes we went through in order to suggest the most suitable steps to support and improve the overall digitalization level of the company.

5.6 Timeline and Milestones

1. The client can verify its digitalization status in different ways as outlined:
   - Performing the BIM readiness level questionnaire online and reach first results at the end of the questionnaire. In case of a deep analysis of the results, clients should provide email contact to the MEZeroE platform and wait for the MEZeroE report which will be sent directly to the client after the elaborations of the replies (approximately 1 week).
   - Using the BIM package configurator tool, available in the MEZeroE Virtual Marketplace, from which the client can visualize and download the list of features and steps necessary to create the BIM object of the product for which the queries has been relayed and filtered in the tool.
2. If the client wants to be helped with the questionnaire and the configurator, it can contact the MEZeroE partners to complete both option with their support (approximately 2-3 days for the reply and to fix the first online meeting).
3. Following step 2, we analyse both BIM readiness level questionnaire replies and BIM configurator to identify the best alternatives for the company and provide BIM object examples from the Marketplace (approximately 1 month).
4. The client then can handle the digitalization plan with a project manager specialized in marketing and digitalization (it can be months or years, according to the integration project complexity)
5. The digitalization process support has been completed!

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6 Discussion and conclusions

The Building Data Matrix development, both in terms of process and datasets, has been a strategic activity that remarks the importance of having a common and understandable language for different actors along the chain, for different purposes of using the information.

Initially, the idea to filter the data per scenarios came from the feedback of the first round of questionnaires which highlighted the difficulty in identifying which kind of products' datasets can be considered valid for different purposes belonging to various construction segments.

To solve these barriers, and with the support of the MEZeroE partners, above all the IND, the four scenarios have been identified, and then in line with Task 3.3, the envelope-building products have been clustered into the 9 construction segments. This modular structure moreover will facilitate its future implementation, allowing simple integration per parameter into each category according to possible future changes.

The last phases of this task which will correspond mainly to the validation of the MEZeroE BIM datasets will be an essential step to reach the final milestone of the BIM configuration package tool before its implementation on the Virtual Marketplace. The validation will be fundamental to eventually fine-tune the different standardized datasets, adding, modifying, or erasing parameters according to the test which will be conducted in collaboration with the PM&VLs and into the enrolled LL of the project as a proof of concept of the MEZeroE BIM standardized process.

The final version of this deliverable will integrate the above-mentioned results collected during the final validation phase of this task activities.

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8 Appendixes – BIM Data Matrix (BDM) worksheets

8.1 BDM worksheet: Scenario A – Construction segment 1
Marketing and Communication – Multifunctional, multilayer façade systems

8.2 BDM worksheet: Scenario A – Construction segment 2
Marketing and Communication – Cladding systems

8.3 BDM worksheet: Scenario A – Construction segment 3
Marketing and Communication – Coating and finishes

8.4 BDM worksheet: Scenario A – Construction segment 4
Marketing and Communication – Glazing and frames

8.5 BDM worksheet: Scenario A – Construction segment 5
Marketing and Communication – Membranes

8.6 BDM worksheet: Scenario A – Construction segment 6
Marketing and Communication – Joints and connectors

8.7 BDM worksheet: Scenario A – Construction segment 7
Marketing and Communication – Insulation

8.8 BDM worksheet: Scenario A – Construction segment 8
Marketing and Communication – Green roofs and green façades

8.9 BDM worksheet: Scenario A – Construction segment 8
Marketing and Communication – Active solar energy systems

8.10 BDM worksheet: Scenario B – Construction segment 1
Test and Monitoring – Multifunctional, multilayer façade systems

8.11 BDM worksheet: Scenario B – Construction segment 2
Test and Monitoring – Cladding systems

8.12 BDM worksheet: Scenario B – Construction segment 3
Test and Monitoring – Coating and finishes

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SC	A	Scenario A	Marketing and Communication
CS	1	Construction Segment 1	Multifunctional, multilayer façade systems

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
10	ID10	Manufacturing code	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)
42	DIM26	Sill	Boolean
43	DIM27	Sill Height	Numeric (unit)
44	DIM28	Type of construction of windows	Alphanumeric
45	DIM29	Opening layout	Alphanumeric
47	DIM31	Frame depth	Numeric (unit)
48	DIM32	Frame thickness	Numeric (unit)

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
71	MP15	Mechanical load rating	Alphanumeric
72	MP16	Wind load resistance rating	Alphanumeric

Nr.	EP	Energy Parameters	Data Type
135	EP22	Shading elements	Boolean
136	EP23	Type of shading elements	Alphanumeric
137	EP24	Shading mechanically operated	Boolean
138	EP25	Shading elements control system	Alphanumeric
139	EP26	Integration of other systems	Alphanumeric
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric
143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric
145	EP32	Integration of control logics	Alphanumeric

Nr.	GHG	Emission Parameters	Data Type
191	GHG1	Coating Information	Alphanumeric

Nr.	I	Installation	Data Type
257	I12	Installation date	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric

SC	A	Scenario A	Marketing and Communication
CS	2	Construction Segment 2	Cladding systems

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
11	ID11	Assembly site	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)
49	DIM33	Mullion shape	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric

Nr.	GHG	Emission Parameters	Data Type
191	GHG1	Coating Information	Alphanumeric

Nr.	FP	Fire Protection	Data Type
227	FP1	Fire Protection certificate	Alphanumeric
228	FP2	Flammability rating	Alphanumeric
229	FP3	Fragility rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric

Nr.	PI	Packaging Information	Data Type
237	PI1	Length of packaging unit	Alphanumeric
238	PI2	Width of packaging unit	Alphanumeric
239	PI3	Height of packaging unit	Alphanumeric
240	PI4	Weight of packaging unit	Alphanumeric
241	PI5	Contents of package	Alphanumeric
243	PI7	Container requirements	Alphanumeric
244	PI8	Wrapping requirements	Alphanumeric
245	PI9	Fragile nature	Alphanumeric

Nr.	I	Installation	Data Type
246	I1	Minimum man power	Alphanumeric
248	I3	Application Method	Alphanumeric
250	I5	Nature of the risk	Alphanumeric
251	I6	Risk cause	Alphanumeric
252	I7	Risk consequence	Alphanumeric
253	I8	Risk rating	Alphanumeric
254	I9	Affects surroundings	Alphanumeric
255	I10	Preventive measures	Alphanumeric

257	I12	Installation date	Alphanumeric
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric
261	I16	Time of installation	Alphanumeric

Nr.	**M**	**Maintainence**	**Data Type**
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
268	M7	Warranty contact	Alphanumeric
270	M9	Warranty content	Alphanumeric
271	M10	Warranty exclusions	Alphanumeric
272	M11	Warranty duration	Alphanumeric
273	M12	Warranty start date	Alphanumeric
274	M13	Warranty end date	Alphanumeric

Nr.	**LCC**	**LCC - LCA**	**Data Type**
287	LCC13	Use	Alphanumeric
288	LCC14	Maintenance	Alphanumeric
289	LCC15	Replacement	Alphanumeric
295	LCC21	Recycling	Alphanumeric
296	LCC22	Disposal	Alphanumeric
297	LCC23	Collection process	Alphanumeric
298	LCC24	Recovery system	Alphanumeric
306	LCC32	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
314	LCC40	Use of renewable secondary fuels	Numeric (unit)
317	LCC43	Hazardous waste disposed	Numeric (unit)
318	LCC44	Non-hazardous waste disposed	Numeric (unit)
319	LCC45	Radioactive waste disposed	Numeric (unit)
320	LCC46	Components for re-use	Alphanumeric
321	LCC47	Materials for recycling	Alphanumeric

SC	A	Scenario A	Marketing and Communication
CS	3	Construction Segment 3	Coating and finishes

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
10	ID10	Manufacturing code	Alphanumeric
11	ID11	Assembly site	Alphanumeric
12	ID12	Assembly code	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
20	DIM4	Thickness	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)

Nr.	MF	Material and Finishes	Data Type
54	MF2	Color	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
73	MP17	Durability rating	Alphanumeric

Nr.	EP	Energy Parameters	Data Type
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
120	EP7	Visible Light Reflectance	Numeric (-)
121	EP8	Visual Light Transmittance (VLT)	Numeric (-)
122	EP9	Solar Heat Gain Coefficient (SHGC)	Numeric (-)
125	EP12	Solar Transmittance	Numeric (-)
130	EP17	Water Resistance	Alphanumeric
131	EP18	Water Resistance Standard	Alphanumeric
132	EP19	Hygrothermal rating	Alphanumeric
149	EP36	Roughness	Numeric (-)

Nr.	GHG	Emission Parameters	Data Type
191	GHG1	Coating Information	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric
198	GHG8	Maximum controlled emissions rate	Alphanumeric
203	GHG13	Additional Emissions	Alphanumeric
204	GHG14	Standard of Performance	Alphanumeric

Nr.	OU	Operation and Use	Data Type
206	OU1	Operating temperature range	Numeric (unit)
207	OU2	Minimum Operation Space	Alphanumeric
208	OU3	Expected life	Alphanumeric
209	OU4	Adjustment of service life	Alphanumeric
210	OU5	Service life duration	Numeric (unit)
212	OU7	Security rating	Alphanumeric
217	OU12	Operating limitations	Alphanumeric

Nr.	FP	Fire Protection	Data Type
228	FP2	Flammability rating	Alphanumeric
229	FP3	Fragility rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	PI	Packaging Information	Data Type
237	PI1	Length of packaging unit	Alphanumeric
238	PI2	Width of packaging unit	Alphanumeric

239	PI3	Height of packaging unit	Alphanumeric
240	PI4	Weight of packaging unit	Alphanumeric
241	PI5	Contents of package	Alphanumeric
242	PI6	Special instructions	Alphanumeric
243	PI7	Container requirements	Alphanumeric
245	PI9	Fragile nature	Alphanumeric

Nr.	I	Installation	Data Type
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
249	I4	Shelf life	Alphanumeric
250	I5	Nature of the risk	Alphanumeric
251	I6	Risk cause	Alphanumeric
252	I7	Risk consequence	Alphanumeric
253	I8	Risk rating	Alphanumeric
254	I9	Affects surroundings	Alphanumeric
255	I10	Preventive measures	Alphanumeric
256	I11	Installation space	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric
261	I16	Time of installation	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
267	M6	Warranty code	Numeric (-)
268	M7	Warranty contact	Alphanumeric
270	M9	Warranty content	Alphanumeric
271	M10	Warranty exclusions	Alphanumeric
272	M11	Warranty duration	Alphanumeric
273	M12	Warranty start date	Alphanumeric
274	M13	Warranty end date	Alphanumeric

Nr.	LCC	LCC - LCA	Data Type
279	LCC5	Packaging manufacturing	Alphanumeric
287	LCC13	Use	Alphanumeric
288	LCC14	Maintenance	Alphanumeric
289	LCC15	Replacement	Alphanumeric
291	LCC17	Operational energy use	Numeric (unit)
292	LCC18	Operationale water use	Numeric (unit)
306	LCC32	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	Numeric (unit)
307	LCC33	Use of renewable primary energy used as raw materials	Numeric (unit)
308	LCC34	Total use of renewable primary energy resources	Numeric (unit)
309	LCC35	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	Numeric (unit)
310	LCC36	Use of non-renewable primary energy used as raw materials	Numeric (unit)
311	LCC37	Total use of non-renewable primary energy resources	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
313	LCC39	Use of secondary materials	Alphanumeric
316	LCC42	Use of net fresh water	Numeric (unit)
317	LCC43	Hazardous waste disposed	Numeric (unit)
318	LCC44	Non-hazardous waste disposed	Numeric (unit)
326	LCC52	Life cycle phase	Alphanumeric

SC	A	Scenario A	Marketing and Communication
CS	4	Construction Segment 4	Glazing and frames

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
10	ID10	Manufacturing code	Alphanumeric
11	ID11	Assembly site	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
23	DIM7	Area	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
31	DIM15	Glass layer 1 thickness	Numeric (unit)
32	DIM16	Glass layer 2 thickness	Numeric (unit)
33	DIM17	Glass layer 3 thickness	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
36	DIM20	Is glass tempered	Boolean
37	DIM21	Is glass laminated	Boolean
38	DIM22	Is glass coated	Boolean
39	DIM23	Is glass wired	Boolean
40	DIM24	Glazing area	Numeric (-)
41	DIM25	Handle	Boolean
44	DIM28	Type of construction of windows	Alphanumeric
45	DIM29	Opening layout	Alphanumeric
46	DIM30	Opening style	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric

Nr.	EP	Energy Parameters	Data Type
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
116	EP3	Glass thermal transmittance (Ug)	Numeric (unit)
117	EP4	Window thermal transmittance (Uw)	Numeric (unit)
121	EP8	Visual Light Transmittance (VLT)	Numeric (-)
122	EP9	Solar Heat Gain Coefficient (SHGC)	Numeric (-)

Nr.	AP	Acoustic Parameters	Data Type
167	AP1	Acoustic rating	Alphanumeric

Nr.	GHG	Emission Parameters	Data Type
191	GHG1	Coating Information	Alphanumeric
192	GHG2	VOC Content	Alphanumeric
195	GHG5	Minimum Transfer Efficiency	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric
202	GHG12	CO2 content	Numeric (unit)
204	GHG14	Standard of Performance	Alphanumeric
205	GHG15	Regulations	Alphanumeric

Nr.	OU	Operation and Use	Data Type
216	OU11	Automatic operation	Alphanumeric

Nr.	FP	Fire Protection	Data Type
227	FP1	Fire Protection certificate	Alphanumeric

Nr.	PI	Packaging Information	Data Type
241	PI5	Contents of package	Alphanumeric

Nr.	I	Installation	Data Type
258	I13	Installation guide	Link

Nr.	LCC	LCC - LCA	Data Type
293	LCC19	Demolition	Alphanumeric
294	LCC20	Waste processing transport	Alphanumeric
295	LCC21	Recycling	Alphanumeric
296	LCC22	Disposal	Alphanumeric
298	LCC24	Recovery system	Alphanumeric
299	LCC25	Global Warming Potential (GWP)	Numeric (unit)
300	LCC26	Ozone Depletion (ODP)	Numeric (unit)
301	LCC27	Acidification potential (AP)	Numeric (unit)
302	LCC28	Eutrophication potential (EP)	Numeric (unit)
303	LCC29	Photochemical ozone creation (POPC)	Numeric (unit)
304	LCC30	Abiotic depletion potential for non-fossil resources (ADP-elements)	Numeric (unit)
305	LCC31	Abiotic depletion potential for fossil resources (ADP-fossil fuels)	Numeric (unit)
306	LCC32	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	Numeric (unit)
307	LCC33	Use of renewable primary energy used as raw materials	Numeric (unit)
308	LCC34	Total use of renewable primary energy resources	Numeric (unit)
309	LCC35	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	Numeric (unit)
310	LCC36	Use of non-renewable primary energy used as raw materials	Numeric (unit)
311	LCC37	Total use of non-renewable primary energy resources	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
313	LCC39	Use of secondary materials	Alphanumeric
314	LCC40	Use of renewable secondary fuels	Numeric (unit)
315	LCC41	Use of non-renewable secondary fuels	Numeric (unit)
316	LCC42	Use of net fresh water	Numeric (unit)
317	LCC43	Hazardous waste disposed	Numeric (unit)
318	LCC44	Non-hazardous waste disposed	Numeric (unit)
319	LCC45	Radioactive waste disposed	Numeric (unit)
320	LCC46	Components for re-use	Alphanumeric
321	LCC47	Materials for recycling	Alphanumeric
322	LCC48	Materials for energy recovery	Alphanumeric
323	LCC49	Exported energy	Numeric (unit)

SC	A	Scenario A	Marketing and Communication
CS	5	Construction Segment 5	Membranes

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
23	DIM7	Area	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
65	MP9	Shear strength	Numeric (unit)
67	MP11	Tensile strength	Numeric (unit)
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric

Nr.	EP	Energy Parameters	Data Type
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
130	EP17	Water Resistance	Alphanumeric

Nr.	GHG	Emission Parameters	Data Type
192	GHG2	VOC Content	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric

Nr.	OU	Operation and Use	Data Type
206	OU1	Operating temperature range	Numeric (unit)
210	OU5	Service life duration	Numeric (unit)

Nr.	FP	Fire Protection	Data Type
228	FP2	Flammability rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric
231	FP5	Spread of flames	Alphanumeric

Nr.	PI	Packaging Information	Data Type
241	PI5	Contents of package	Alphanumeric

Nr.	I	Installation	Data Type
247	I2	Application temperature	Alphanumeric

Nr.	LCC	LCC - LCA	Data Type
299	LCC25	Global Warming Potential (GWP)	Numeric (unit)
300	LCC26	Ozone Depletion (ODP)	Numeric (unit)

SC	A	Scenario A	Marketing and Communication
CS	6	Construction Segment 6	Joints and connectors

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
25	DIM9	Weight	Numeric (unit)

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
67	MP11	Tensile strength	Numeric (unit)
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric

Nr.	PI	Packaging Information	Data Type
241	PI5	Contents of package	Alphanumeric

Nr.	I	Installation	Data Type
247	I2	Application temperature	Alphanumeric

SC	A	Scenario A	Marketing and Communication
CS	7	Construction Segment 7	Insulation

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
9	ID9	Manufacturing site	Alphanumeric
11	ID11	Assembly site	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric

Nr.	EP	Energy Parameters	Data Type
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)

Nr.	GHG	Emission Parameters	Data Type
192	GHG2	VOC Content	Alphanumeric
195	GHG5	Minimum Transfer Efficiency	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric
202	GHG12	CO2 content	Numeric (unit)
204	GHG14	Standard of Performance	Alphanumeric
205	GHG15	Regulations	Alphanumeric

Nr.	FP	Fire Protection	Data Type
227	FP1	Fire Protection certificate	Alphanumeric
231	FP5	Spread of flames	Alphanumeric
234	FP8	Smoke stop	Alphanumeric

Nr.	I	Installation	Data Type
247	I2	Application temperature	Alphanumeric

SC	A	Scenario A	Marketing and Communication
CS	8	Construction Segment 8	Green roofs and green façades

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
10	ID10	Manufacturing code	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)
28	DIM12	Mass density	Numeric (unit)
42	DIM26	Sill	Boolean
43	DIM27	Sill Height	Numeric (unit)

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
71	MP15	Mechanical load rating	Alphanumeric
72	MP16	Wind load resistance rating	Alphanumeric
73	MP17	Durability rating	Alphanumeric

Nr.	EP	Energy Parameters	Data Type
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
132	EP19	Hygrothermal rating	Alphanumeric
139	EP26	Integration of other systems	Alphanumeric
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric
143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric

Nr.	GHG	Emission Parameters	Data Type
191	GHG1	Coating Information	Alphanumeric

Nr.	OU	Operation and Use	Data Type
208	OU3	Expected life	Alphanumeric
217	OU12	Operating limitations	Alphanumeric
218	OU13	Heat and humid climates	Alphanumeric
219	OU14	Temperature cycles	Alphanumeric

Nr.	I	Installation	Data Type
246	I1	Minimum man power	Alphanumeric
257	I12	Installation date	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric

SC	A	Scenario A	Marketing and Communication
CS	9	Construction Segment 9	Active solar energy systems

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
9	ID9	Manufacturing site	Alphanumeric
11	ID11	Assembly site	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
49	DIM33	Mullion shape	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
73	MP17	Durability rating	Alphanumeric
74	MP18	Type of fastener	Alphanumeric

Nr.	EP	Energy Parameters	Data Type
130	EP17	Water Resistance	Alphanumeric
131	EP18	Water Resistance Standard	Alphanumeric
132	EP19	Hygrothermal rating	Alphanumeric
150	EP37	Maximum power	Numeric (unit)
153	EP40	Module efficiency	Numeric (-)
154	EP41	Solar cell type	Alphanumeric

Nr.	GHG	Emission Parameters	Data Type
191	GHG1	Coating Information	Alphanumeric

Nr.	OU	Operation and Use	Data Type
206	OU1	Operating temperature range	Numeric (unit)
208	OU3	Expected life	Alphanumeric
212	OU7	Security rating	Alphanumeric
217	OU12	Operating limitations	Alphanumeric

Nr.	FP	Fire Protection	Data Type
227	FP1	Fire Protection certificate	Alphanumeric
228	FP2	Flammability rating	Alphanumeric
229	FP3	Fragility rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric
231	FP5	Spread of flames	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	I	Installation	Data Type
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
249	I4	Shelf life	Alphanumeric
256	I11	Installation space	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric

Nr.	M	Maintainence	Data Type
268	M7	Warranty contact	Alphanumeric

Nr.	LCC	LCC - LCA	Data Type
299	LCC25	Global Warming Potential (GWP)	Numeric (unit)
300	LCC26	Ozone Depletion (ODP)	Numeric (unit)
301	LCC27	Acidification potential (AP)	Numeric (unit)
302	LCC28	Eutrophication potential (EP)	Numeric (unit)
303	LCC29	Photochemical ozone creation (POPC)	Numeric (unit)
304	LCC30	Abiotic depletion potential for non-fossil resources (ADP-elements)	Numeric (unit)
305	LCC31	Abiotic depletion potential for fossil resources (ADP-fossil fuels)	Numeric (unit)
308	LCC34	Total use of renewable primary energy resources	Numeric (unit)
311	LCC37	Total use of non-renewable primary energy resources	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
326	LCC52	Life cycle phase	Alphanumeric

SC	B	Scenario B	Test and Monitoring
CS	1	Construction Segment 1	Multifunctional, multilayer façade systems

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
10	ID10	Manufacturing code	Alphanumeric
11	ID11	Assembly site	Alphanumeric
12	ID12	Assembly code	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
26	DIM10	Mass per unit length	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)
28	DIM12	Mass density	Numeric (unit)
29	DIM13	Swing Angle	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
31	DIM15	Glass layer 1 thickness	Numeric (unit)
32	DIM16	Glass layer 2 thickness	Numeric (unit)
33	DIM17	Glass layer 3 thickness	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
35	DIM19	Glass color	Alphanumeric
36	DIM20	Is glass tempered	Boolean
37	DIM21	Is glass laminated	Boolean
38	DIM22	Is glass coated	Boolean
39	DIM23	Is glass wired	Boolean
40	DIM24	Glazing area	Numeric (-)
41	DIM25	Handle	Boolean
42	DIM26	Sill	Boolean
43	DIM27	Sill Height	Numeric (unit)
44	DIM28	Type of construction of windows	Alphanumeric
45	DIM29	Opening layout	Alphanumeric
46	DIM30	Opening style	Alphanumeric
47	DIM31	Frame depth	Numeric (unit)
48	DIM32	Frame thickness	Numeric (unit)
49	DIM33	Mullion shape	Alphanumeric
50	DIM34	Mullion dimensions	Alphanumeric
51	DIM35	Transom shape	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric
56	MF4	%mass of each materials used	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)

59	MP3	Sagging moment inertia	Numeric (unit)
60	MP4	Hogging moment inertia	Numeric (unit)
61	MP5	Young's modulus	Numeric (unit)
62	MP6	Bulk modulus	Numeric (unit)
63	MP7	Shear modulus	Numeric (unit)
64	MP8	Yield stress	Numeric (unit)
65	MP9	Shear strength	Numeric (unit)
66	MP10	Bending strength	Numeric (unit)
67	MP11	Tensile strength	Numeric (unit)
68	MP12	Poission's ratio	Numeric (-)
69	MP13	Spacer	Alphanumeric
70	MP14	Load bearing	Boolean
71	MP15	Mechanical load rating	Alphanumeric
72	MP16	Wind load resistance rating	Alphanumeric
73	MP17	Durability rating	Alphanumeric
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric
77	MP21	Bending resistance	Numeric (unit)
78	MP22	Bond properties from single lap shear test	Alphanumeric
79	MP23	Bond strength by pull-off	Numeric (unit)
80	MP24	Breaking strength	Numeric (unit)
81	MP25	modulus of elasticity	Numeric (unit)
82	MP26	Elongation LD/TD – longitudinal/transverse direction	Numeric (unit)
83	MP27	Maximum tensile force LD/TD – longitudinal/transverse direction	Numeric (unit)
84	MP28	Resistance to racking	Numeric (unit)
85	MP29	Resistance to static torsion	Numeric (unit)
86	MP30	Peel adhesion	Alphanumeric
87	MP31	Resistance to tearing LD/TD – longitudinal/transverse direction	Numeric (unit)
88	MP32	Shear resistance	Numeric (unit)
89	MP33	Strength of corners	Numeric (unit)
91	MP35	Vertical load capacity	Numeric (unit)
92	MP36	Horizontal load capacity	Numeric (unit)
93	MP37	Cross panel tensile strength	Numeric (unit)
95	MP39	Complex stiffness/ modulus at different temperatures	Alphanumeric
96	MP40	Dynamic stiffness	Numeric (unit)
97	MP41	Dynamic stiffness /modulus	Numeric (unit)
98	MP42	Dynamic stiffness/ modulus at different temperatures	Alphanumeric
99	MP43	Fatigue life /strength	Numeric (unit)
100	MP44	Fatigue life/strength at different temperatures	Numeric (unit)
101	MP45	Fatigue strength	Numeric (unit)
102	MP46	Flexural and tensile behaviour at different temperatures	Alphanumeric
103	MP47	Low temperature cracking	Alphanumeric
104	MP48	Modulus of elasticity at different temperatures	Alphanumeric
105	MP49	Shear strength at different temperatures	Alphanumeric
106	MP50	Shear test at different temperatures	Alphanumeric
107	MP51	Tensile and compression behaviour at different temperatures	Alphanumeric
108	MP52	Tensile behavior at different temperatures	Alphanumeric
109	MP53	Tensile behaviour and elongation at different temperatures	Alphanumeric
110	MP54	Tensile strength at different temperatures	Alphanumeric
111	MP55	Thermo-mechanical fatigue life	Alphanumeric
112	MP56	Wide-width tensile test at different temperatures	Alphanumeric
113	MP57	Dynamic test of façade system in out of plane direction	Boolean

Nr.	**EP**	**Energy Parameters**	**Data Type**
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
115	EP2	Frame thermal transmittance (Uf)	Numeric (unit)
116	EP3	Glass thermal transmittance (Ug)	Numeric (unit)
117	EP4	Window thermal transmittance (Uw)	Numeric (unit)
118	EP5	Linear heat transfer coefficient ΨG	Numeric (unit)
119	EP6	Thermal conductivity	Numeric (unit)
120	EP7	Visible Light Reflectance	Numeric (-)
121	EP8	Visual Light Transmittance (VLT)	Numeric (-)
122	EP9	Solar Heat Gain Coefficient (SHGC)	Numeric (-)
123	EP10	Solar Absorption	Numeric (-)
124	EP11	Solar Reflectance	Numeric (-)

125	EP12	Solar Transmittance	Numeric (-)
126	EP13	Shading Coefficient	Numeric (-)
127	EP14	Energy Rating Scheme	Alphanumeric
128	EP15	Air Leakage	Alphanumeric
129	EP16	Air Leakage Standard	Alphanumeric
130	EP17	Water Resistance	Alphanumeric
131	EP18	Water Resistance Standard	Alphanumeric
132	EP19	Hygrothermal rating	Alphanumeric
133	EP20	Condensation Resistance	Alphanumeric
134	EP21	Condensation Resistance Standard	Alphanumeric
135	EP22	Shading elements	Boolean
136	EP23	Type of shading elements	Alphanumeric
137	EP24	Shading mechanically operated	Boolean
138	EP25	Shading elements control system	Alphanumeric
139	EP26	Integration of other systems	Alphanumeric
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric
143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric
145	EP32	Integration of control logics	Alphanumeric
146	EP33	Communication protocols	Alphanumeric
147	EP34	Integration with Building Management Systems (BMS)	Alphanumeric
148	EP35	Absorptance	Numeric (-)
149	EP36	Roughness	Numeric (-)
150	EP37	Maximum power	Numeric (unit)
151	EP38	Open-circuit voltage	Numeric (unit)
152	EP39	Short-circuit current	Numeric (unit)
153	EP40	Module efficiency	Numeric (-)
154	EP41	Solar cell type	Alphanumeric
155	EP42	Number of cells	Alphanumeric
156	EP43	Water vapor diffusion (Interstitial water vapor condensation risk and	Numeric (-)
157	EP44	Infrared inspection	Alphanumeric
158	EP45	Internal surface temperature	Numeric (unit)

Nr.	**AP**	**Acoustic Parameters**	**Data Type**
167	AP1	Acoustic rating	Alphanumeric
168	AP2	Sound absorption	Numeric (unit)
169	AP3	Dynamic stiffness	Numeric (unit)
170	AP4	Compressibility	Numeric (unit)
171	AP5	Average apparent dynamic rigidity	Numeric (unit)
172	AP6	Resonance frequency	Numeric (unit)
173	AP7	Weighted sound reduction index	Numeric (unit)
176	AP10	Critical damping ratio	Numeric (-)
178	AP12	Impact sound insulation	Numeric (unit)
179	AP13	Airborne sound insulation	Numeric (unit)
180	AP14	Direction-averaged junction velocity level difference for connector or for connection model	Alphanumeric

Nr.	**D**	**Durability**	**Data Type**
181	D1	Evaluation of influence fungi and molds on properties innovative materials	Alphanumeric
182	D2	Freeze-thaw	Alphanumeric
183	D3	Sunlight Xe	Alphanumeric
184	D4	UV radiation	Alphanumeric
185	D5	Acid rain	Alphanumeric
187	D7	Temperature + humidity	Alphanumeric
188	D8	SEM Electronic Microscopy	Alphanumeric
189	D9	OM Optical Microscopy	Alphanumeric
190	D10	FTIR Infrared Microscopy	Alphanumeric

Nr.	**GHG**	**Emission Parameters**	**Data Type**
191	GHG1	Coating Information	Alphanumeric
192	GHG2	VOC Content	Alphanumeric
193	GHG3	Solids Content	Alphanumeric
194	GHG4	HAPs Content	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric
197	GHG7	Maximum uncontrolled emissions	Alphanumeric

198	GHG8	Maximum controlled emissions rate	Alphanumeric
199	GHG9	Pollution control efficiency	Alphanumeric
201	GHG11	CO content	Numeric (unit)
202	GHG12	CO2 content	Numeric (unit)
203	GHG13	Additional Emissions	Alphanumeric
204	GHG14	Standard of Performance	Alphanumeric
205	GHG15	Regulations	Alphanumeric

Nr.	OU	Operation and Use	Data Type
206	OU1	Operating temperature range	Numeric (unit)
207	OU2	Minimum Operation Space	Alphanumeric
208	OU3	Expected life	Alphanumeric
209	OU4	Adjustment of service life	Alphanumeric
210	OU5	Service life duration	Numeric (unit)
211	OU6	Average failure time	Numeric (unit)
212	OU7	Security rating	Alphanumeric
213	OU8	Corrosion rate	Alphanumeric
216	OU11	Automatic operation	Alphanumeric
217	OU12	Operating limitations	Alphanumeric
218	OU13	Heat and humid climates	Alphanumeric
219	OU14	Temperature cycles	Alphanumeric
220	OU15	Humid and freezing nights	Alphanumeric
221	OU16	UV affectance (yellowing/discoloration,...)	Alphanumeric
222	OU17	High voltage operation (large connections/ installations)	Alphanumeric
223	OU18	Light Induced Degradation	Alphanumeric
224	OU19	Light and elevated temperature induced degradation	Alphanumeric

Nr.	FP	Fire Protection	Data Type
227	FP1	Fire Protection certificate	Alphanumeric
228	FP2	Flammability rating	Alphanumeric
229	FP3	Fragility rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric
231	FP5	Spread of flames	Alphanumeric
232	FP6	Compartmentation	Alphanumeric
233	FP7	Fire exit	Alphanumeric
234	FP8	Smoke stop	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	PI	Packaging Information	Data Type
237	PI1	Length of packaging unit	Alphanumeric
238	PI2	Width of packaging unit	Alphanumeric
239	PI3	Height of packaging unit	Alphanumeric
240	PI4	Weight of packaging unit	Alphanumeric
241	PI5	Contents of package	Alphanumeric
242	PI6	Special instructions	Alphanumeric
243	PI7	Container requirements	Alphanumeric
244	PI8	Wrapping requirements	Alphanumeric
245	PI9	Fragile nature	Alphanumeric

Nr.	I	Installation	Data Type
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
249	I4	Shelf life	Alphanumeric
250	I5	Nature of the risk	Alphanumeric
251	I6	Risk cause	Alphanumeric
252	I7	Risk consequence	Alphanumeric
253	I8	Risk rating	Alphanumeric
254	I9	Affects surroundings	Alphanumeric
255	I10	Preventive measures	Alphanumeric
256	I11	Installation space	Alphanumeric
257	I12	Installation date	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric
261	I16	Time of installation	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
264	M3	Date of repair	Alphanumeric
265	M4	Time to repair	Alphanumeric
266	M5	Priority type	Alphanumeric
267	M6	Warranty code	Numeric (-)
268	M7	Warranty contact	Alphanumeric
269	M8	Extended warranty	Alphanumeric
270	M9	Warranty content	Alphanumeric
271	M10	Warranty exclusions	Alphanumeric
272	M11	Warranty duration	Alphanumeric
273	M12	Warranty start date	Alphanumeric
274	M13	Warranty end date	Alphanumeric

Nr.	LCC	LCC - LCA	Data Type
275	LCC1	Raw material supply	Alphanumeric
276	LCC2	Recycled materials supply	Alphanumeric
277	LCC3	Raw materials road transportations	Alphanumeric
278	LCC4	Product manufacturing	Alphanumeric
279	LCC5	Packaging manufacturing	Alphanumeric
280	LCC6	Fuel type for transport	Alphanumeric
281	LCC7	Vehicle consumption	Alphanumeric
282	LCC8	Vehicle type	Alphanumeric
283	LCC9	Transport distance	Numeric (unit)
284	LCC10	Capacity utilisation	Alphanumeric
285	LCC11	Wastage of materials	Alphanumeric
286	LCC12	Output materials	Alphanumeric
287	LCC13	Use	Alphanumeric
288	LCC14	Maintenance	Alphanumeric
289	LCC15	Replacement	Alphanumeric
290	LCC16	Refurbishment	Alphanumeric
291	LCC17	Operational energy use	Numeric (unit)
292	LCC18	Operationale water use	Numeric (unit)
293	LCC19	Demolition	Alphanumeric
294	LCC20	Waste processing transport	Alphanumeric
295	LCC21	Recycling	Alphanumeric
296	LCC22	Disposal	Alphanumeric
297	LCC23	Collection process	Alphanumeric
298	LCC24	Recovery system	Alphanumeric
299	LCC25	Global Warming Potential (GWP)	Numeric (unit)
300	LCC26	Ozone Depletion (ODP)	Numeric (unit)
301	LCC27	Acidification potential (AP)	Numeric (unit)
302	LCC28	Eutrophication potential (EP)	Numeric (unit)
303	LCC29	Photochemical ozone creation (POPC)	Numeric (unit)
304	LCC30	Abiotic depletion potential for non-fossil resources (ADP-elements)	Numeric (unit)
305	LCC31	Abiotic depletion potential for fossil resources (ADP-fossil fuels)	Numeric (unit)
306	LCC32	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	Numeric (unit)
307	LCC33	Use of renewable primary energy used as raw materials	Numeric (unit)
308	LCC34	Total use of renewable primary energy resources	Numeric (unit)
309	LCC35	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	Numeric (unit)
310	LCC36	Use of non-renewable primary energy used as raw materials	Numeric (unit)
311	LCC37	Total use of non-renewable primary energy resources	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
313	LCC39	Use of secondary materials	Alphanumeric
314	LCC40	Use of renewable secondary fuels	Numeric (unit)
315	LCC41	Use of non-renewable secondary fuels	Numeric (unit)
316	LCC42	Use of net fresh water	Numeric (unit)
317	LCC43	Hazardous waste disposed	Numeric (unit)
318	LCC44	Non-hazardous waste disposed	Numeric (unit)
319	LCC45	Radioactive waste disposed	Numeric (unit)
320	LCC46	Components for re-use	Alphanumeric
321	LCC47	Materials for recycling	Alphanumeric
322	LCC48	Materials for energy recovery	Alphanumeric

323	LCC49	Exported energy	Numeric (unit)
324	LCC50	Resources depletion	Alphanumeric
325	LCC51	Inert waste	Alphanumeric
326	LCC52	Life cycle phase	Alphanumeric

SC	B	Scenario B	Test and Monitoring
CS	2	Construction Segment 2	Cladding systems

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
10	ID10	Manufacturing code	Alphanumeric
11	ID11	Assembly site	Alphanumeric
12	ID12	Assembly code	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
26	DIM10	Mass per unit length	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)
28	DIM12	Mass density	Numeric (unit)
29	DIM13	Swing Angle	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
31	DIM15	Glass layer 1 thickness	Numeric (unit)
32	DIM16	Glass layer 2 thickness	Numeric (unit)
33	DIM17	Glass layer 3 thickness	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
36	DIM20	Is glass tempered	Boolean
37	DIM21	Is glass laminated	Boolean
40	DIM24	Glazing area	Numeric (-)
44	DIM28	Type of construction of windows	Alphanumeric
49	DIM33	Mullion shape	Alphanumeric
50	DIM34	Mullion dimensions	Alphanumeric
51	DIM35	Transom shape	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric
56	MF4	%mass of each materials used	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)
59	MP3	Sagging moment inertia	Numeric (unit)
60	MP4	Hogging moment inertia	Numeric (unit)
61	MP5	Young's modulus	Numeric (unit)
62	MP6	Bulk modulus	Numeric (unit)
63	MP7	Shear modulus	Numeric (unit)
64	MP8	Yield stress	Numeric (unit)
65	MP9	Shear strength	Numeric (unit)
66	MP10	Bending strength	Numeric (unit)
67	MP11	Tensile strength	Numeric (unit)
68	MP12	Poission's ratio	Numeric (-)

69	MP13	Spacer	Alphanumeric
70	MP14	Load bearing	Boolean
71	MP15	Mechanical load rating	Alphanumeric
72	MP16	Wind load resistance rating	Alphanumeric
73	MP17	Durability rating	Alphanumeric
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric
77	MP21	Bending resistance	Numeric (unit)
78	MP22	Bond properties from single lap shear test	Alphanumeric
79	MP23	Bond strength by pull-off	Numeric (unit)
80	MP24	Breaking strength	Numeric (unit)
81	MP25	modulus of elasticity	Numeric (unit)
82	MP26	Elongation LD/TD – longitudinal/transverse direction	Numeric (unit)
83	MP27	Maximum tensile force LD/TD – longitudinal/transverse direction	Numeric (unit)
84	MP28	Resistance to racking	Numeric (unit)
85	MP29	Resistance to static torsion	Numeric (unit)
86	MP30	Peel adhesion	Alphanumeric
87	MP31	Resistance to tearing LD/TD – longitudinal/transverse direction	Numeric (unit)
88	MP32	Shear resistance	Numeric (unit)
89	MP33	Strength of corners	Numeric (unit)
90	MP34	Tension resistance of the connection	Numeric (unit)
91	MP35	Vertical load capacity	Numeric (unit)
92	MP36	Horizontal load capacity	Numeric (unit)
93	MP37	Cross panel tensile strength	Numeric (unit)
95	MP39	Complex stiffness/ modulus at different temperatures	Alphanumeric
96	MP40	Dynamic stiffness	Numeric (unit)
97	MP41	Dynamic stiffness /modulus	Numeric (unit)
98	MP42	Dynamic stiffness/ modulus at different temperatures	Alphanumeric
99	MP43	Fatigue life /strength	Numeric (unit)
100	MP44	Fatigue life/strength at different temperatures	Numeric (unit)
101	MP45	Fatigue strength	Numeric (unit)
102	MP46	Flexural and tensile behaviour at different temperatures	Alphanumeric
103	MP47	Low temperature cracking	Alphanumeric
104	MP48	Modulus of elasticity at different temperatures	Alphanumeric
105	MP49	Shear strength at different temperatures	Alphanumeric
106	MP50	Shear test at different temperatures	Alphanumeric
107	MP51	Tensile and compression behaviour at different temperatures	Alphanumeric
108	MP52	Tensile behavior at different temperatures	Alphanumeric
109	MP53	Tensile behaviour and elongation at different temperatures	Alphanumeric
110	MP54	Tensile strength at different temperatures	Alphanumeric
111	MP55	Thermo-mechanical fatigue life	Alphanumeric
112	MP56	Wide-width tensile test at different temperatures	Alphanumeric
113	MP57	Dynamic test of façade system in out of plane direction	Boolean

Nr.	**EP**	**Energy Parameters**	**Data Type**
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
115	EP2	Frame thermal transmittance (Uf)	Numeric (unit)
116	EP3	Glass thermal transmittance (Ug)	Numeric (unit)
117	EP4	Window thermal transmittance (Uw)	Numeric (unit)
118	EP5	Linear heat transfer coefficient ΨG	Numeric (unit)
119	EP6	Thermal conductivity	Numeric (unit)
121	EP8	Visual Light Transmittance (VLT)	Numeric (-)
122	EP9	Solar Heat Gain Coefficient (SHGC)	Numeric (-)
123	EP10	Solar Absorption	Numeric (-)
124	EP11	Solar Reflectance	Numeric (-)
125	EP12	Solar Transmittance	Numeric (-)
128	EP15	Air Leakage	Alphanumeric
130	EP17	Water Resistance	Alphanumeric
132	EP19	Hygrothermal rating	Alphanumeric
133	EP20	Condensation Resistance	Alphanumeric
134	EP21	Condensation Resistance Standard	Alphanumeric
139	EP26	Integration of other systems	Alphanumeric
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric

143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric
145	EP32	Integration of control logics	Alphanumeric
146	EP33	Communication protocols	Alphanumeric
147	EP34	Integration with Building Management Systems (BMS)	Alphanumeric
148	EP35	Absorptance	Numeric (-)
149	EP36	Roughness	Numeric (-)
153	EP40	Module efficiency	Numeric (-)
156	EP43	Water vapor diffusion (Interstitial water vapor condensation risk and	Numeric (-)
157	EP44	Infrared inspection	Alphanumeric
158	EP45	Internal surface temperature	Numeric (unit)

Nr.	AP	Acoustic Parameters	Data Type
167	AP1	Acoustic rating	Alphanumeric
168	AP2	Sound absorption	Numeric (unit)
169	AP3	Dynamic stiffness	Numeric (unit)
170	AP4	Compressibility	Numeric (unit)
171	AP5	Average apparent dynamic rigidity	Numeric (unit)
172	AP6	Resonance frequency	Numeric (unit)
173	AP7	Weighted sound reduction index	Numeric (unit)
178	AP12	Impact sound insulation	Numeric (unit)
179	AP13	Airborne sound insulation	Numeric (unit)
180	AP14	Direction-averaged junction velocity level difference for connector or for connection model	Alphanumeric

Nr.	D	Durability	Data Type
181	D1	Evaluation of influence fungi and molds on properties innovative materials	Alphanumeric
182	D2	Freeze-thaw	Alphanumeric
183	D3	Sunlight Xe	Alphanumeric
184	D4	UV radiation	Alphanumeric
185	D5	Acid rain	Alphanumeric
187	D7	Temperature + humidity	Alphanumeric
188	D8	SEM Electronic Microscopy	Alphanumeric
189	D9	OM Optical Microscopy	Alphanumeric
190	D10	FTIR Infrared Microscopy	Alphanumeric

Nr.	GHG	Emission Parameters	Data Type
191	GHG1	Coating Information	Alphanumeric
192	GHG2	VOC Content	Alphanumeric
201	GHG11	CO content	Numeric (unit)
202	GHG12	CO2 content	Numeric (unit)
203	GHG13	Additional Emissions	Alphanumeric

Nr.	OU	Operation and Use	Data Type
206	OU1	Operating temperature range	Numeric (unit)
208	OU3	Expected life	Alphanumeric
210	OU5	Service life duration	Numeric (unit)
217	OU12	Operating limitations	Alphanumeric
218	OU13	Heat and humid climates	Alphanumeric
219	OU14	Temperature cycles	Alphanumeric
220	OU15	Humid and freezing nights	Alphanumeric
221	OU16	UV affectance (yellowing/discoloration,...)	Alphanumeric
222	OU17	High voltage operation (large connections/ installations)	Alphanumeric
223	OU18	Light Induced Degradation	Alphanumeric
224	OU19	Light and elevated temperature induced degradation	Alphanumeric

Nr.	FP	Fire Protection	Data Type
227	FP1	Fire Protection certificate	Alphanumeric
228	FP2	Flammability rating	Alphanumeric
229	FP3	Fragility rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric
231	FP5	Spread of flames	Alphanumeric
232	FP6	Compartmentation	Alphanumeric
233	FP7	Fire exit	Alphanumeric
234	FP8	Smoke stop	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	PI	Packaging Information	Data Type
237	PI1	Length of packaging unit	Alphanumeric
238	PI2	Width of packaging unit	Alphanumeric
239	PI3	Height of packaging unit	Alphanumeric
240	PI4	Weight of packaging unit	Alphanumeric
241	PI5	Contents of package	Alphanumeric
242	PI6	Special instructions	Alphanumeric
243	PI7	Container requirements	Alphanumeric
244	PI8	Wrapping requirements	Alphanumeric
245	PI9	Fragile nature	Alphanumeric

Nr.	I	Installation	Data Type
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
249	I4	Shelf life	Alphanumeric
250	I5	Nature of the risk	Alphanumeric
251	I6	Risk cause	Alphanumeric
252	I7	Risk consequence	Alphanumeric
253	I8	Risk rating	Alphanumeric
254	I9	Affects surroundings	Alphanumeric
255	I10	Preventive measures	Alphanumeric
256	I11	Installation space	Alphanumeric
257	I12	Installation date	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric
261	I16	Time of installation	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
264	M3	Date of repair	Alphanumeric
265	M4	Time to repair	Alphanumeric
266	M5	Priority type	Alphanumeric
267	M6	Warranty code	Numeric (-)
268	M7	Warranty contact	Alphanumeric
269	M8	Extended warranty	Alphanumeric
270	M9	Warranty content	Alphanumeric
271	M10	Warranty exclusions	Alphanumeric
272	M11	Warranty duration	Alphanumeric
273	M12	Warranty start date	Alphanumeric
274	M13	Warranty end date	Alphanumeric

Nr.	LCC	LCC - LCA	Data Type
275	LCC1	Raw material supply	Alphanumeric
276	LCC2	Recycled materials supply	Alphanumeric
277	LCC3	Raw materials road transportations	Alphanumeric
278	LCC4	Product manufacturing	Alphanumeric
279	LCC5	Packaging manufacturing	Alphanumeric
280	LCC6	Fuel type for transport	Alphanumeric
281	LCC7	Vehicle consumption	Alphanumeric
282	LCC8	Vehicle type	Alphanumeric
283	LCC9	Transport distance	Numeric (unit)
284	LCC10	Capacity utilisation	Alphanumeric
285	LCC11	Wastage of materials	Alphanumeric
286	LCC12	Output materials	Alphanumeric
287	LCC13	Use	Alphanumeric
288	LCC14	Maintenance	Alphanumeric
289	LCC15	Replacement	Alphanumeric
290	LCC16	Refurbishment	Alphanumeric
291	LCC17	Operational energy use	Numeric (unit)
292	LCC18	Operationale water use	Numeric (unit)
293	LCC19	Demolition	Alphanumeric
294	LCC20	Waste processing transport	Alphanumeric
295	LCC21	Recycling	Alphanumeric
296	LCC22	Disposal	Alphanumeric

297	LCC23	Collection process	Alphanumeric
298	LCC24	Recovery system	Alphanumeric
299	LCC25	Global Warming Potential (GWP)	Numeric (unit)
300	LCC26	Ozone Depletion (ODP)	Numeric (unit)
301	LCC27	Acidification potential (AP)	Numeric (unit)
302	LCC28	Eutrophication potential (EP)	Numeric (unit)
303	LCC29	Photochemical ozone creation (POPC)	Numeric (unit)
304	LCC30	Abiotic depletion potential for non-fossil resources (ADP-elements)	Numeric (unit)
305	LCC31	Abiotic depletion potential for fossil resources (ADP-fossil fuels)	Numeric (unit)
306	LCC32	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	Numeric (unit)
307	LCC33	Use of renewable primary energy used as raw materials	Numeric (unit)
308	LCC34	Total use of renewable primary energy resources	Numeric (unit)
309	LCC35	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	Numeric (unit)
310	LCC36	Use of non-renewable primary energy used as raw materials	Numeric (unit)
311	LCC37	Total use of non-renewable primary energy resources	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
313	LCC39	Use of secondary materials	Alphanumeric
314	LCC40	Use of renewable secondary fuels	Numeric (unit)
315	LCC41	Use of non-renewable secondary fuels	Numeric (unit)
316	LCC42	Use of net fresh water	Numeric (unit)
317	LCC43	Hazardous waste disposed	Numeric (unit)
318	LCC44	Non-hazardous waste disposed	Numeric (unit)
319	LCC45	Radioactive waste disposed	Numeric (unit)
320	LCC46	Components for re-use	Alphanumeric
321	LCC47	Materials for recycling	Alphanumeric
322	LCC48	Materials for energy recovery	Alphanumeric
323	LCC49	Exported energy	Numeric (unit)
324	LCC50	Resources depletion	Alphanumeric
325	LCC51	Inert waste	Alphanumeric
326	LCC52	Life cycle phase	Alphanumeric

SC	B	Scenario B	Test and Monitoring
CS	3	Construction Segment 3	Coating and finishes

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
10	ID10	Manufacturing code	Alphanumeric
11	ID11	Assembly site	Alphanumeric
12	ID12	Assembly code	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
26	DIM10	Mass per unit length	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)
28	DIM12	Mass density	Numeric (unit)
29	DIM13	Swing Angle	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
31	DIM15	Glass layer 1 thickness	Numeric (unit)
32	DIM16	Glass layer 2 thickness	Numeric (unit)
33	DIM17	Glass layer 3 thickness	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
35	DIM19	Glass color	Alphanumeric
36	DIM20	Is glass tempered	Boolean
37	DIM21	Is glass laminated	Boolean
38	DIM22	Is glass coated	Boolean
39	DIM23	Is glass wired	Boolean
40	DIM24	Glazing area	Numeric (-)
41	DIM25	Handle	Boolean
42	DIM26	Sill	Boolean
43	DIM27	Sill Height	Numeric (unit)
44	DIM28	Type of construction of windows	Alphanumeric
45	DIM29	Opening layout	Alphanumeric
46	DIM30	Opening style	Alphanumeric
47	DIM31	Frame depth	Numeric (unit)
48	DIM32	Frame thickness	Numeric (unit)
49	DIM33	Mullion shape	Alphanumeric
50	DIM34	Mullion dimensions	Alphanumeric
51	DIM35	Transom shape	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric
56	MF4	%mass of each materials used	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)

59	MP3	Sagging moment inertia	Numeric (unit)
60	MP4	Hogging moment inertia	Numeric (unit)
61	MP5	Young's modulus	Numeric (unit)
62	MP6	Bulk modulus	Numeric (unit)
63	MP7	Shear modulus	Numeric (unit)
64	MP8	Yield stress	Numeric (unit)
65	MP9	Shear strength	Numeric (unit)
66	MP10	Bending strength	Numeric (unit)
67	MP11	Tensile strength	Numeric (unit)
68	MP12	Poission's ratio	Numeric (-)
69	MP13	Spacer	Alphanumeric
70	MP14	Load bearing	Boolean
71	MP15	Mechanical load rating	Alphanumeric
72	MP16	Wind load resistance rating	Alphanumeric
73	MP17	Durability rating	Alphanumeric
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric
77	MP21	Bending resistance	Numeric (unit)
78	MP22	Bond properties from single lap shear test	Alphanumeric
79	MP23	Bond strength by pull-off	Numeric (unit)
86	MP30	Peel adhesion	Alphanumeric
94	MP38	Adhesion by tensile bond strength at different temperatures	Alphanumeric

Nr.	**EP**	**Energy Parameters**	**Data Type**
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
115	EP2	Frame thermal transmittance (Uf)	Numeric (unit)
116	EP3	Glass thermal transmittance (Ug)	Numeric (unit)
117	EP4	Window thermal transmittance (Uw)	Numeric (unit)
118	EP5	Linear heat transfer coefficient ΨG	Numeric (unit)
119	EP6	Thermal conductivity	Numeric (unit)
120	EP7	Visible Light Reflectance	Numeric (-)
121	EP8	Visual Light Transmittance (VLT)	Numeric (-)
122	EP9	Solar Heat Gain Coefficient (SHGC)	Numeric (-)
123	EP10	Solar Absorption	Numeric (-)
124	EP11	Solar Reflectance	Numeric (-)
125	EP12	Solar Transmittance	Numeric (-)
126	EP13	Shading Coefficient	Numeric (-)
127	EP14	Energy Rating Scheme	Alphanumeric
128	EP15	Air Leakage	Alphanumeric
129	EP16	Air Leakage Standard	Alphanumeric
130	EP17	Water Resistance	Alphanumeric
131	EP18	Water Resistance Standard	Alphanumeric
132	EP19	Hygrothermal rating	Alphanumeric
133	EP20	Condensation Resistance	Alphanumeric
134	EP21	Condensation Resistance Standard	Alphanumeric
135	EP22	Shading elements	Boolean
136	EP23	Type of shading elements	Alphanumeric
137	EP24	Shading mechanically operated	Boolean
138	EP25	Shading elements control system	Alphanumeric
139	EP26	Integration of other systems	Alphanumeric
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric
143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric
145	EP32	Integration of control logics	Alphanumeric
146	EP33	Communication protocols	Alphanumeric
147	EP34	Integration with Building Management Systems (BMS)	Alphanumeric
148	EP35	Absorptance	Numeric (-)
149	EP36	Roughness	Numeric (-)
150	EP37	Maximum power	Numeric (unit)
151	EP38	Open-circuit voltage	Numeric (unit)
152	EP39	Short-circuit current	Numeric (unit)
153	EP40	Module efficiency	Numeric (-)
154	EP41	Solar cell type	Alphanumeric
155	EP42	Number of cells	Alphanumeric
156	EP43	Water vapor diffusion (Interstitial water vapor condensation risk and	Numeric (-)

157	EP44	Infrared inspection	Alphanumeric
158	EP45	Internal surface temperature	Numeric (unit)

Nr.	AP	Acoustic Parameters	Data Type
167	AP1	Acoustic rating	Alphanumeric
168	AP2	Sound absorption	Numeric (unit)
169	AP3	Dynamic stiffness	Numeric (unit)
170	AP4	Compressibility	Numeric (unit)
171	AP5	Average apparent dynamic rigidity	Numeric (unit)
172	AP6	Resonance frequency	Numeric (unit)
173	AP7	Weighted sound reduction index	Numeric (unit)
178	AP12	Impact sound insulation	Numeric (unit)
179	AP13	Airborne sound insulation	Numeric (unit)

Nr.	D	Durability	Data Type
181	D1	Evaluation of influence fungi and molds on properties innovative materials	Alphanumeric
182	D2	Freeze-thaw	Alphanumeric
183	D3	Sunlight Xe	Alphanumeric
184	D4	UV radiation	Alphanumeric
185	D5	Acid rain	Alphanumeric
186	D6	Sea water or breeze	Alphanumeric
187	D7	Temperature + humidity	Alphanumeric
188	D8	SEM Electronic Microscopy	Alphanumeric
189	D9	OM Optical Microscopy	Alphanumeric
190	D10	FTIR Infrared Microscopy	Alphanumeric

Nr.	GHG	Emission Parameters	Data Type
191	GHG1	Coating Information	Alphanumeric
192	GHG2	VOC Content	Alphanumeric
193	GHG3	Solids Content	Alphanumeric
194	GHG4	HAPs Content	Alphanumeric
195	GHG5	Minimum Transfer Efficiency	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric
197	GHG7	Maximum uncontrolled emissions	Alphanumeric
198	GHG8	Maximum controlled emissions rate	Alphanumeric
199	GHG9	Pollution control efficiency	Alphanumeric
200	GHG10	N2O content	Numeric (unit)
201	GHG11	CO content	Numeric (unit)
202	GHG12	CO2 content	Numeric (unit)
203	GHG13	Additional Emissions	Alphanumeric
204	GHG14	Standard of Performance	Alphanumeric
205	GHG15	Regulations	Alphanumeric

Nr.	OU	Operation and Use	Data Type
206	OU1	Operating temperature range	Numeric (unit)
207	OU2	Minimum Operation Space	Alphanumeric
208	OU3	Expected life	Alphanumeric
209	OU4	Adjustment of service life	Alphanumeric
210	OU5	Service life duration	Numeric (unit)
211	OU6	Average failure time	Numeric (unit)
212	OU7	Security rating	Alphanumeric
213	OU8	Corrosion rate	Alphanumeric
216	OU11	Automatic operation	Alphanumeric
217	OU12	Operating limitations	Alphanumeric
218	OU13	Heat and humid climates	Alphanumeric
219	OU14	Temperature cycles	Alphanumeric
220	OU15	Humid and freezing nights	Alphanumeric
221	OU16	UV affectance (yellowing/discoloration,...)	Alphanumeric
222	OU17	High voltage operation (large connections/ installations)	Alphanumeric
223	OU18	Light Induced Degradation	Alphanumeric
224	OU19	Light and elevated temperature induced degradation	Alphanumeric

Nr.	FP	Fire Protection	Data Type
227	FP1	Fire Protection certificate	Alphanumeric
228	FP2	Flammability rating	Alphanumeric
229	FP3	Fragility rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric

231	FP5	Spread of flames	Alphanumeric
232	FP6	Compartmentation	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	PI	Packaging Information	Data Type
237	PI1	Length of packaging unit	Alphanumeric
238	PI2	Width of packaging unit	Alphanumeric
239	PI3	Height of packaging unit	Alphanumeric
240	PI4	Weight of packaging unit	Alphanumeric
241	PI5	Contents of package	Alphanumeric
242	PI6	Special instructions	Alphanumeric
243	PI7	Container requirements	Alphanumeric
244	PI8	Wrapping requirements	Alphanumeric
245	PI9	Fragile nature	Alphanumeric

Nr.	I	Installation	Data Type
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
249	I4	Shelf life	Alphanumeric
250	I5	Nature of the risk	Alphanumeric
251	I6	Risk cause	Alphanumeric
252	I7	Risk consequence	Alphanumeric
253	I8	Risk rating	Alphanumeric
254	I9	Affects surroundings	Alphanumeric
255	I10	Preventive measures	Alphanumeric
256	I11	Installation space	Alphanumeric
257	I12	Installation date	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric
261	I16	Time of installation	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
266	M5	Priority type	Alphanumeric
267	M6	Warranty code	Numeric (-)
268	M7	Warranty contact	Alphanumeric
269	M8	Extended warranty	Alphanumeric
270	M9	Warranty content	Alphanumeric
271	M10	Warranty exclusions	Alphanumeric
272	M11	Warranty duration	Alphanumeric
273	M12	Warranty start date	Alphanumeric
274	M13	Warranty end date	Alphanumeric

Nr.	LCC	LCC - LCA	Data Type
275	LCC1	Raw material supply	Alphanumeric
276	LCC2	Recycled materials supply	Alphanumeric
277	LCC3	Raw materials road transportations	Alphanumeric
278	LCC4	Product manufacturing	Alphanumeric
279	LCC5	Packaging manufacturing	Alphanumeric
280	LCC6	Fuel type for transport	Alphanumeric
281	LCC7	Vehicle consumption	Alphanumeric
282	LCC8	Vehicle type	Alphanumeric
283	LCC9	Transport distance	Numeric (unit)
284	LCC10	Capacity utilisation	Alphanumeric
285	LCC11	Wastage of materials	Alphanumeric
286	LCC12	Output materials	Alphanumeric
287	LCC13	Use	Alphanumeric
288	LCC14	Maintenance	Alphanumeric
289	LCC15	Replacement	Alphanumeric
290	LCC16	Refurbishment	Alphanumeric
291	LCC17	Operational energy use	Numeric (unit)
292	LCC18	Operationale water use	Numeric (unit)
293	LCC19	Demolition	Alphanumeric
294	LCC20	Waste processing transport	Alphanumeric

295	LCC21	Recycling	Alphanumeric
296	LCC22	Disposal	Alphanumeric
297	LCC23	Collection process	Alphanumeric
298	LCC24	Recovery system	Alphanumeric
299	LCC25	Global Warming Potential (GWP)	Numeric (unit)
300	LCC26	Ozone Depletion (ODP)	Numeric (unit)
301	LCC27	Acidification potential (AP)	Numeric (unit)
302	LCC28	Eutrophication potential (EP)	Numeric (unit)
303	LCC29	Photochemical ozone creation (POPC)	Numeric (unit)
304	LCC30	Abiotic depletion potential for non-fossil resources (ADP-elements)	Numeric (unit)
305	LCC31	Abiotic depletion potential for fossil resources (ADP-fossil fuels)	Numeric (unit)
306	LCC32	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	Numeric (unit)
307	LCC33	Use of renewable primary energy used as raw materials	Numeric (unit)
308	LCC34	Total use of renewable primary energy resources	Numeric (unit)
309	LCC35	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	Numeric (unit)
310	LCC36	Use of non-renewable primary energy used as raw materials	Numeric (unit)
311	LCC37	Total use of non-renewable primary energy resources	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
313	LCC39	Use of secondary materials	Alphanumeric
314	LCC40	Use of renewable secondary fuels	Numeric (unit)
315	LCC41	Use of non-renewable secondary fuels	Numeric (unit)
316	LCC42	Use of net fresh water	Numeric (unit)
317	LCC43	Hazardous waste disposed	Numeric (unit)
318	LCC44	Non-hazardous waste disposed	Numeric (unit)
319	LCC45	Radioactive waste disposed	Numeric (unit)
320	LCC46	Components for re-use	Alphanumeric
321	LCC47	Materials for recycling	Alphanumeric
322	LCC48	Materials for energy recovery	Alphanumeric
323	LCC49	Exported energy	Numeric (unit)
324	LCC50	Resources depletion	Alphanumeric
325	LCC51	Inert waste	Alphanumeric
326	LCC52	Life cycle phase	Alphanumeric

SC	B	Scenario B	Test and Monitoring
CS	4	Construction Segment 4	Glazing and frames

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
10	ID10	Manufacturing code	Alphanumeric
11	ID11	Assembly site	Alphanumeric
12	ID12	Assembly code	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
26	DIM10	Mass per unit length	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)
28	DIM12	Mass density	Numeric (unit)
29	DIM13	Swing Angle	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
31	DIM15	Glass layer 1 thickness	Numeric (unit)
32	DIM16	Glass layer 2 thickness	Numeric (unit)
33	DIM17	Glass layer 3 thickness	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
35	DIM19	Glass color	Alphanumeric
36	DIM20	Is glass tempered	Boolean
37	DIM21	Is glass laminated	Boolean
38	DIM22	Is glass coated	Boolean
39	DIM23	Is glass wired	Boolean
40	DIM24	Glazing area	Numeric (-)
41	DIM25	Handle	Boolean
42	DIM26	Sill	Boolean
43	DIM27	Sill Height	Numeric (unit)
44	DIM28	Type of construction of windows	Alphanumeric
45	DIM29	Opening layout	Alphanumeric
46	DIM30	Opening style	Alphanumeric
47	DIM31	Frame depth	Numeric (unit)
48	DIM32	Frame thickness	Numeric (unit)
49	DIM33	Mullion shape	Alphanumeric
50	DIM34	Mullion dimensions	Alphanumeric
51	DIM35	Transom shape	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric
56	MF4	%mass of each materials used	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)

59	MP3	Sagging moment inertia	Numeric (unit)
60	MP4	Hogging moment inertia	Numeric (unit)
61	MP5	Young's modulus	Numeric (unit)
62	MP6	Bulk modulus	Numeric (unit)
63	MP7	Shear modulus	Numeric (unit)
64	MP8	Yield stress	Numeric (unit)
65	MP9	Shear strength	Numeric (unit)
66	MP10	Bending strength	Numeric (unit)
67	MP11	Tensile strength	Numeric (unit)
68	MP12	Poission's ratio	Numeric (-)
69	MP13	Spacer	Alphanumeric
70	MP14	Load bearing	Boolean
71	MP15	Mechanical load rating	Alphanumeric
72	MP16	Wind load resistance rating	Alphanumeric
73	MP17	Durability rating	Alphanumeric
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric
77	MP21	Bending resistance	Numeric (unit)
80	MP24	Breaking strength	Numeric (unit)
81	MP25	modulus of elasticity	Numeric (unit)
82	MP26	Elongation LD/TD – longitudinal/transverse direction	Numeric (unit)
83	MP27	Maximum tensile force LD/TD – longitudinal/transverse direction	Numeric (unit)
84	MP28	Resistance to racking	Numeric (unit)
85	MP29	Resistance to static torsion	Numeric (unit)
86	MP30	Peel adhesion	Alphanumeric
87	MP31	Resistance to tearing LD/TD – longitudinal/transverse direction	Numeric (unit)
88	MP32	Shear resistance	Numeric (unit)
89	MP33	Strength of corners	Numeric (unit)
91	MP35	Vertical load capacity	Numeric (unit)
92	MP36	Horizontal load capacity	Numeric (unit)
93	MP37	Cross panel tensile strength	Numeric (unit)
95	MP39	Complex stiffness/ modulus at different temperatures	Alphanumeric
96	MP40	Dynamic stiffness	Numeric (unit)
97	MP41	Dynamic stiffness /modulus	Numeric (unit)
98	MP42	Dynamic stiffness/ modulus at different temperatures	Alphanumeric
99	MP43	Fatigue life /strength	Numeric (unit)
100	MP44	Fatigue life/strength at different temperatures	Numeric (unit)
101	MP45	Fatigue strength	Numeric (unit)
102	MP46	Flexural and tensile behaviour at different temperatures	Alphanumeric
103	MP47	Low temperature cracking	Alphanumeric
104	MP48	Modulus of elasticity at different temperatures	Alphanumeric
105	MP49	Shear strength at different temperatures	Alphanumeric
106	MP50	Shear test at different temperatures	Alphanumeric
107	MP51	Tensile and compression behaviour at different temperatures	Alphanumeric
108	MP52	Tensile behavior at different temperatures	Alphanumeric
109	MP53	Tensile behaviour and elongation at different temperatures	Alphanumeric
110	MP54	Tensile strength at different temperatures	Alphanumeric
111	MP55	Thermo-mechanical fatigue life	Alphanumeric
112	MP56	Wide-width tensile test at different temperatures	Alphanumeric

Nr.	**EP**	**Energy Parameters**	**Data Type**
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
115	EP2	Frame thermal transmittance (Uf)	Numeric (unit)
116	EP3	Glass thermal transmittance (Ug)	Numeric (unit)
117	EP4	Window thermal transmittance (Uw)	Numeric (unit)
118	EP5	Linear heat transfer coefficient ΨG	Numeric (unit)
119	EP6	Thermal conductivity	Numeric (unit)
120	EP7	Visible Light Reflectance	Numeric (-)
121	EP8	Visual Light Transmittance (VLT)	Numeric (-)
122	EP9	Solar Heat Gain Coefficient (SHGC)	Numeric (-)
123	EP10	Solar Absorption	Numeric (-)
124	EP11	Solar Reflectance	Numeric (-)
125	EP12	Solar Transmittance	Numeric (-)
126	EP13	Shading Coefficient	Numeric (-)
127	EP14	Energy Rating Scheme	Alphanumeric

128	EP15	Air Leakage	Alphanumeric
129	EP16	Air Leakage Standard	Alphanumeric
130	EP17	Water Resistance	Alphanumeric
131	EP18	Water Resistance Standard	Alphanumeric
132	EP19	Hygrothermal rating	Alphanumeric
133	EP20	Condensation Resistance	Alphanumeric
134	EP21	Condensation Resistance Standard	Alphanumeric
135	EP22	Shading elements	Boolean
136	EP23	Type of shading elements	Alphanumeric
137	EP24	Shading mechanically operated	Boolean
138	EP25	Shading elements control system	Alphanumeric
139	EP26	Integration of other systems	Alphanumeric
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric
143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric
145	EP32	Integration of control logics	Alphanumeric
146	EP33	Communication protocols	Alphanumeric
147	EP34	Integration with Building Management Systems (BMS)	Alphanumeric
148	EP35	Absorptance	Numeric (-)
149	EP36	Roughness	Numeric (-)
150	EP37	Maximum power	Numeric (unit)
151	EP38	Open-circuit voltage	Numeric (unit)
152	EP39	Short-circuit current	Numeric (unit)
153	EP40	Module efficiency	Numeric (-)
154	EP41	Solar cell type	Alphanumeric
155	EP42	Number of cells	Alphanumeric
157	EP44	Infrared inspection	Alphanumeric
158	EP45	Internal surface temperature	Numeric (unit)

Nr.	**AP**	**Acoustic Parameters**	**Data Type**
167	AP1	Acoustic rating	Alphanumeric
168	AP2	Sound absorption	Numeric (unit)
169	AP3	Dynamic stiffness	Numeric (unit)
170	AP4	Compressibility	Numeric (unit)
171	AP5	Average apparent dynamic rigidity	Numeric (unit)
172	AP6	Resonance frequency	Numeric (unit)
173	AP7	Weighted sound reduction index	Numeric (unit)
178	AP12	Impact sound insulation	Numeric (unit)
179	AP13	Airborne sound insulation	Numeric (unit)
180	AP14	Direction-averaged junction velocity level difference for connector or for connection model	Alphanumeric

Nr.	**D**	**Durability**	**Data Type**
181	D1	Evaluation of influence fungi and molds on properties innovative materials	Alphanumeric
182	D2	Freeze-thaw	Alphanumeric
183	D3	Sunlight Xe	Alphanumeric
184	D4	UV radiation	Alphanumeric
187	D7	Temperature + humidity	Alphanumeric
188	D8	SEM Electronic Microscopy	Alphanumeric
189	D9	OM Optical Microscopy	Alphanumeric
190	D10	FTIR Infrared Microscopy	Alphanumeric

Nr.	**GHG**	**Emission Parameters**	**Data Type**
191	GHG1	Coating Information	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric
197	GHG7	Maximum uncontrolled emissions	Alphanumeric
198	GHG8	Maximum controlled emissions rate	Alphanumeric
199	GHG9	Pollution control efficiency	Alphanumeric
203	GHG13	Additional Emissions	Alphanumeric
204	GHG14	Standard of Performance	Alphanumeric
205	GHG15	Regulations	Alphanumeric

Nr.	**OU**	**Operation and Use**	**Data Type**
206	OU1	Operating temperature range	Numeric (unit)
207	OU2	Minimum Operation Space	Alphanumeric

208	OU3	Expected life	Alphanumeric
209	OU4	Adjustment of service life	Alphanumeric
210	OU5	Service life duration	Numeric (unit)
211	OU6	Average failure time	Numeric (unit)
212	OU7	Security rating	Alphanumeric
213	OU8	Corrosion rate	Alphanumeric
216	OU11	Automatic operation	Alphanumeric
217	OU12	Operating limitations	Alphanumeric
218	OU13	Heat and humid climates	Alphanumeric
219	OU14	Temperature cycles	Alphanumeric
220	OU15	Humid and freezing nights	Alphanumeric
221	OU16	UV affectance (yellowing/discoloration,...)	Alphanumeric
222	OU17	High voltage operation (large connections/ installations)	Alphanumeric
223	OU18	Light Induced Degradation	Alphanumeric
224	OU19	Light and elevated temperature induced degradation	Alphanumeric

Nr.	**FP**	**Fire Protection**	**Data Type**
227	FP1	Fire Protection certificate	Alphanumeric
228	FP2	Flammability rating	Alphanumeric
229	FP3	Fragility rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric
231	FP5	Spread of flames	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	**PI**	**Packaging Information**	**Data Type**
237	PI1	Length of packaging unit	Alphanumeric
238	PI2	Width of packaging unit	Alphanumeric
239	PI3	Height of packaging unit	Alphanumeric
240	PI4	Weight of packaging unit	Alphanumeric
241	PI5	Contents of package	Alphanumeric
242	PI6	Special instructions	Alphanumeric
243	PI7	Container requirements	Alphanumeric
244	PI8	Wrapping requirements	Alphanumeric
245	PI9	Fragile nature	Alphanumeric

Nr.	**I**	**Installation**	**Data Type**
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
249	I4	Shelf life	Alphanumeric
250	I5	Nature of the risk	Alphanumeric
251	I6	Risk cause	Alphanumeric
252	I7	Risk consequence	Alphanumeric
253	I8	Risk rating	Alphanumeric
254	I9	Affects surroundings	Alphanumeric
255	I10	Preventive measures	Alphanumeric
256	I11	Installation space	Alphanumeric
257	I12	Installation date	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric
261	I16	Time of installation	Alphanumeric

Nr.	**M**	**Maintainence**	**Data Type**
262	M1	Frequency of Mandatory Inspection	Alphanumeric

Nr.	**LCC**	**LCC - LCA**	**Data Type**
275	LCC1	Raw material supply	Alphanumeric
276	LCC2	Recycled materials supply	Alphanumeric
277	LCC3	Raw materials road transportations	Alphanumeric
278	LCC4	Product manufacturing	Alphanumeric
279	LCC5	Packaging manufacturing	Alphanumeric
280	LCC6	Fuel type for transport	Alphanumeric
281	LCC7	Vehicle consumption	Alphanumeric
282	LCC8	Vehicle type	Alphanumeric
283	LCC9	Transport distance	Numeric (unit)
284	LCC10	Capacity utilisation	Alphanumeric

285	LCC11	Wastage of materials	Alphanumeric
286	LCC12	Output materials	Alphanumeric
287	LCC13	Use	Alphanumeric
288	LCC14	Maintenance	Alphanumeric
289	LCC15	Replacement	Alphanumeric
290	LCC16	Refurbishment	Alphanumeric
291	LCC17	Operational energy use	Numeric (unit)
292	LCC18	Operationale water use	Numeric (unit)
293	LCC19	Demolition	Alphanumeric
294	LCC20	Waste processing transport	Alphanumeric
295	LCC21	Recycling	Alphanumeric
296	LCC22	Disposal	Alphanumeric
297	LCC23	Collection process	Alphanumeric
298	LCC24	Recovery system	Alphanumeric
299	LCC25	Global Warming Potential (GWP)	Numeric (unit)
300	LCC26	Ozone Depletion (ODP)	Numeric (unit)
301	LCC27	Acidification potential (AP)	Numeric (unit)
302	LCC28	Eutrophication potential (EP)	Numeric (unit)
303	LCC29	Photochemical ozone creation (POPC)	Numeric (unit)
304	LCC30	Abiotic depletion potential for non-fossil resources (ADP-elements)	Numeric (unit)
305	LCC31	Abiotic depletion potential for fossil resources (ADP-fossil fuels)	Numeric (unit)
306	LCC32	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	Numeric (unit)
307	LCC33	Use of renewable primary energy used as raw materials	Numeric (unit)
308	LCC34	Total use of renewable primary energy resources	Numeric (unit)
309	LCC35	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	Numeric (unit)
310	LCC36	Use of non-renewable primary energy used as raw materials	Numeric (unit)
311	LCC37	Total use of non-renewable primary energy resources	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
313	LCC39	Use of secondary materials	Alphanumeric
314	LCC40	Use of renewable secondary fuels	Numeric (unit)
315	LCC41	Use of non-renewable secondary fuels	Numeric (unit)
316	LCC42	Use of net fresh water	Numeric (unit)
317	LCC43	Hazardous waste disposed	Numeric (unit)
318	LCC44	Non-hazardous waste disposed	Numeric (unit)
319	LCC45	Radioactive waste disposed	Numeric (unit)
320	LCC46	Components for re-use	Alphanumeric
321	LCC47	Materials for recycling	Alphanumeric
322	LCC48	Materials for energy recovery	Alphanumeric
323	LCC49	Exported energy	Numeric (unit)
324	LCC50	Resources depletion	Alphanumeric
325	LCC51	Inert waste	Alphanumeric
326	LCC52	Life cycle phase	Alphanumeric

SC	B	Scenario B	Test and Monitoring
CS	5	Construction Segment 5	Membranes

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
11	ID11	Assembly site	Alphanumeric
13	ID13	Product certification	Alphanumeric
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
26	DIM10	Mass per unit length	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)
28	DIM12	Mass density	Numeric (unit)
29	DIM13	Swing Angle	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
31	DIM15	Glass layer 1 thickness	Numeric (unit)
32	DIM16	Glass layer 2 thickness	Numeric (unit)
33	DIM17	Glass layer 3 thickness	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
36	DIM20	Is glass tempered	Boolean
37	DIM21	Is glass laminated	Boolean
40	DIM24	Glazing area	Numeric (-)
49	DIM33	Mullion shape	Alphanumeric
50	DIM34	Mullion dimensions	Alphanumeric
51	DIM35	Transom shape	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric
56	MF4	%mass of each materials used	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)
59	MP3	Sagging moment inertia	Numeric (unit)
60	MP4	Hogging moment inertia	Numeric (unit)
61	MP5	Young's modulus	Numeric (unit)
62	MP6	Bulk modulus	Numeric (unit)
63	MP7	Shear modulus	Numeric (unit)
64	MP8	Yield stress	Numeric (unit)
65	MP9	Shear strength	Numeric (unit)
66	MP10	Bending strength	Numeric (unit)
67	MP11	Tensile strength	Numeric (unit)
68	MP12	Poission's ratio	Numeric (-)
69	MP13	Spacer	Alphanumeric
70	MP14	Load bearing	Boolean
71	MP15	Mechanical load rating	Alphanumeric
72	MP16	Wind load resistance rating	Alphanumeric
73	MP17	Durability rating	Alphanumeric

74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric
77	MP21	Bending resistance	Numeric (unit)
78	MP22	Bond properties from single lap shear test	Alphanumeric
79	MP23	Bond strength by pull-off	Numeric (unit)
80	MP24	Breaking strength	Numeric (unit)
81	MP25	modulus of elasticity	Numeric (unit)
82	MP26	Elongation LD/TD – longitudinal/transverse direction	Numeric (unit)
83	MP27	Maximum tensile force LD/TD – longitudinal/transverse direction	Numeric (unit)
86	MP30	Peel adhesion	Alphanumeric
87	MP31	Resistance to tearing LD/TD – longitudinal/transverse direction	Numeric (unit)
90	MP34	Tension resistance of the connection	Numeric (unit)
94	MP38	Adhesion by tensile bond strength at different temperatures	Alphanumeric
99	MP43	Fatigue life /strength	Numeric (unit)
101	MP45	Fatigue strength	Numeric (unit)
109	MP53	Tensile behaviour and elongation at different temperatures	Alphanumeric
112	MP56	Wide-width tensile test at different temperatures	Alphanumeric

Nr.	**EP**	**Energy Parameters**	**Data Type**
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
115	EP2	Frame thermal transmittance (Uf)	Numeric (unit)
116	EP3	Glass thermal transmittance (Ug)	Numeric (unit)
117	EP4	Window thermal transmittance (Uw)	Numeric (unit)
118	EP5	Linear heat transfer coefficient ΨG	Numeric (unit)
119	EP6	Thermal conductivity	Numeric (unit)
121	EP8	Visual Light Transmittance (VLT)	Numeric (-)
122	EP9	Solar Heat Gain Coefficient (SHGC)	Numeric (-)
123	EP10	Solar Absorption	Numeric (-)
124	EP11	Solar Reflectance	Numeric (-)
125	EP12	Solar Transmittance	Numeric (-)
128	EP15	Air Leakage	Alphanumeric
129	EP16	Air Leakage Standard	Alphanumeric
130	EP17	Water Resistance	Alphanumeric
131	EP18	Water Resistance Standard	Alphanumeric
132	EP19	Hygrothermal rating	Alphanumeric
133	EP20	Condensation Resistance	Alphanumeric
148	EP35	Absorptance	Numeric (-)
149	EP36	Roughness	Numeric (-)
153	EP40	Module efficiency	Numeric (-)
156	EP43	Water vapor diffusion (Interstitial water vapor condensation risk and	Numeric (-)
158	EP45	Internal surface temperature	Numeric (unit)
159	EP46	Yearly/Monthly Energy Yield facing S	Numeric (unit)

Nr.	**AP**	**Acoustic Parameters**	**Data Type**
167	AP1	Acoustic rating	Alphanumeric
168	AP2	Sound absorption	Numeric (unit)
169	AP3	Dynamic stiffness	Numeric (unit)
170	AP4	Compressibility	Numeric (unit)
171	AP5	Average apparent dynamic rigidity	Numeric (unit)
172	AP6	Resonance frequency	Numeric (unit)
173	AP7	Weighted sound reduction index	Numeric (unit)
178	AP12	Impact sound insulation	Numeric (unit)
179	AP13	Airborne sound insulation	Numeric (unit)

Nr.	**D**	**Durability**	**Data Type**
181	D1	Evaluation of influence fungi and molds on properties innovative materials	Alphanumeric
182	D2	Freeze-thaw	Alphanumeric
183	D3	Sunlight Xe	Alphanumeric
184	D4	UV radiation	Alphanumeric
187	D7	Temperature + humidity	Alphanumeric
188	D8	SEM Electronic Microscopy	Alphanumeric
189	D9	OM Optical Microscopy	Alphanumeric
190	D10	FTIR Infrared Microscopy	Alphanumeric

Nr.	GHG	Emission Parameters	Data Type
191	GHG1	Coating Information	Alphanumeric
192	GHG2	VOC Content	Alphanumeric
193	GHG3	Solids Content	Alphanumeric
194	GHG4	HAPs Content	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric
197	GHG7	Maximum uncontrolled emissions	Alphanumeric
198	GHG8	Maximum controlled emissions rate	Alphanumeric
199	GHG9	Pollution control efficiency	Alphanumeric
201	GHG11	CO content	Numeric (unit)
202	GHG12	CO2 content	Numeric (unit)
203	GHG13	Additional Emissions	Alphanumeric
204	GHG14	Standard of Performance	Alphanumeric

Nr.	OU	Operation and Use	Data Type
206	OU1	Operating temperature range	Numeric (unit)
208	OU3	Expected life	Alphanumeric
210	OU5	Service life duration	Numeric (unit)
217	OU12	Operating limitations	Alphanumeric
221	OU16	UV affectance (yellowing/discoloration,...)	Alphanumeric
222	OU17	High voltage operation (large connections/ installations)	Alphanumeric
223	OU18	Light Induced Degradation	Alphanumeric
224	OU19	Light and elevated temperature induced degradation	Alphanumeric

Nr.	FP	Fire Protection	Data Type
227	FP1	Fire Protection certificate	Alphanumeric
228	FP2	Flammability rating	Alphanumeric
229	FP3	Fragility rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric
231	FP5	Spread of flames	Alphanumeric
232	FP6	Compartmentation	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	PI	Packaging Information	Data Type
237	PI1	Length of packaging unit	Alphanumeric
238	PI2	Width of packaging unit	Alphanumeric
239	PI3	Height of packaging unit	Alphanumeric
240	PI4	Weight of packaging unit	Alphanumeric
241	PI5	Contents of package	Alphanumeric
242	PI6	Special instructions	Alphanumeric
243	PI7	Container requirements	Alphanumeric
244	PI8	Wrapping requirements	Alphanumeric
245	PI9	Fragile nature	Alphanumeric

Nr.	I	Installation	Data Type
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
249	I4	Shelf life	Alphanumeric
250	I5	Nature of the risk	Alphanumeric
251	I6	Risk cause	Alphanumeric
252	I7	Risk consequence	Alphanumeric
253	I8	Risk rating	Alphanumeric
254	I9	Affects surroundings	Alphanumeric
255	I10	Preventive measures	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric
261	I16	Time of installation	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
266	M5	Priority type	Alphanumeric
267	M6	Warranty code	Numeric (-)
268	M7	Warranty contact	Alphanumeric
269	M8	Extended warranty	Alphanumeric

270	M9	Warranty content	Alphanumeric
271	M10	Warranty exclusions	Alphanumeric
272	M11	Warranty duration	Alphanumeric
273	M12	Warranty start date	Alphanumeric
274	M13	Warranty end date	Alphanumeric

Nr.	LCC	LCC - LCA	Data Type
275	LCC1	Raw material supply	Alphanumeric
276	LCC2	Recycled materials supply	Alphanumeric
277	LCC3	Raw materials road transportations	Alphanumeric
278	LCC4	Product manufacturing	Alphanumeric
279	LCC5	Packaging manufacturing	Alphanumeric
280	LCC6	Fuel type for transport	Alphanumeric
281	LCC7	Vehicle consumption	Alphanumeric
282	LCC8	Vehicle type	Alphanumeric
283	LCC9	Transport distance	Numeric (unit)
284	LCC10	Capacity utilisation	Alphanumeric
285	LCC11	Wastage of materials	Alphanumeric
286	LCC12	Output materials	Alphanumeric
287	LCC13	Use	Alphanumeric
288	LCC14	Maintenance	Alphanumeric
289	LCC15	Replacement	Alphanumeric
290	LCC16	Refurbishment	Alphanumeric
291	LCC17	Operational energy use	Numeric (unit)
292	LCC18	Operationale water use	Numeric (unit)
293	LCC19	Demolition	Alphanumeric
294	LCC20	Waste processing transport	Alphanumeric
295	LCC21	Recycling	Alphanumeric
296	LCC22	Disposal	Alphanumeric
297	LCC23	Collection process	Alphanumeric
298	LCC24	Recovery system	Alphanumeric
299	LCC25	Global Warming Potential (GWP)	Numeric (unit)
300	LCC26	Ozone Depletion (ODP)	Numeric (unit)
301	LCC27	Acidification potential (AP)	Numeric (unit)
302	LCC28	Eutrophication potential (EP)	Numeric (unit)
303	LCC29	Photochemical ozone creation (POPC)	Numeric (unit)
304	LCC30	Abiotic depletion potential for non-fossil resources (ADP-elements)	Numeric (unit)
305	LCC31	Abiotic depletion potential for fossil resources (ADP-fossil fuels)	Numeric (unit)
306	LCC32	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	Numeric (unit)
307	LCC33	Use of renewable primary energy used as raw materials	Numeric (unit)
308	LCC34	Total use of renewable primary energy resources	Numeric (unit)
309	LCC35	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	Numeric (unit)
310	LCC36	Use of non-renewable primary energy used as raw materials	Numeric (unit)
311	LCC37	Total use of non-renewable primary energy resources	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
313	LCC39	Use of secondary materials	Alphanumeric
314	LCC40	Use of renewable secondary fuels	Numeric (unit)
315	LCC41	Use of non-renewable secondary fuels	Numeric (unit)
316	LCC42	Use of net fresh water	Numeric (unit)
317	LCC43	Hazardous waste disposed	Numeric (unit)
318	LCC44	Non-hazardous waste disposed	Numeric (unit)
319	LCC45	Radioactive waste disposed	Numeric (unit)
320	LCC46	Components for re-use	Alphanumeric
321	LCC47	Materials for recycling	Alphanumeric
322	LCC48	Materials for energy recovery	Alphanumeric
323	LCC49	Exported energy	Numeric (unit)
324	LCC50	Resources depletion	Alphanumeric
325	LCC51	Inert waste	Alphanumeric
326	LCC52	Life cycle phase	Alphanumeric

SC	B	Scenario B	Test and Monitoring
CS	6	Construction Segment 6	Joints and connectors

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
11	ID11	Assembly site	Alphanumeric
13	ID13	Product certification	Alphanumeric
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
26	DIM10	Mass per unit length	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)
28	DIM12	Mass density	Numeric (unit)
29	DIM13	Swing Angle	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
31	DIM15	Glass layer 1 thickness	Numeric (unit)
32	DIM16	Glass layer 2 thickness	Numeric (unit)
33	DIM17	Glass layer 3 thickness	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
36	DIM20	Is glass tempered	Boolean
37	DIM21	Is glass laminated	Boolean
40	DIM24	Glazing area	Numeric (-)
49	DIM33	Mullion shape	Alphanumeric
50	DIM34	Mullion dimensions	Alphanumeric
51	DIM35	Transom shape	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric
56	MF4	%mass of each materials used	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)
59	MP3	Sagging moment inertia	Numeric (unit)
60	MP4	Hogging moment inertia	Numeric (unit)
61	MP5	Young's modulus	Numeric (unit)
62	MP6	Bulk modulus	Numeric (unit)
63	MP7	Shear modulus	Numeric (unit)
64	MP8	Yield stress	Numeric (unit)
65	MP9	Shear strength	Numeric (unit)
66	MP10	Bending strength	Numeric (unit)
67	MP11	Tensile strength	Numeric (unit)
68	MP12	Poission's ratio	Numeric (-)
69	MP13	Spacer	Alphanumeric
70	MP14	Load bearing	Boolean
71	MP15	Mechanical load rating	Alphanumeric
72	MP16	Wind load resistance rating	Alphanumeric
73	MP17	Durability rating	Alphanumeric
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric

76	MP20	Type of joint	Alphanumeric
77	MP21	Bending resistance	Numeric (unit)
78	MP22	Bond properties from single lap shear test	Alphanumeric
79	MP23	Bond strength by pull-off	Numeric (unit)
80	MP24	Breaking strength	Numeric (unit)
81	MP25	modulus of elasticity	Numeric (unit)
82	MP26	Elongation LD/TD – longitudinal/transverse direction	Numeric (unit)
83	MP27	Maximum tensile force LD/TD – longitudinal/transverse direction	Numeric (unit)
84	MP28	Resistance to racking	Numeric (unit)
85	MP29	Resistance to static torsion	Numeric (unit)
86	MP30	Peel adhesion	Alphanumeric
87	MP31	Resistance to tearing LD/TD – longitudinal/transverse direction	Numeric (unit)
88	MP32	Shear resistance	Numeric (unit)
89	MP33	Strength of corners	Numeric (unit)
90	MP34	Tension resistance of the connection	Numeric (unit)
91	MP35	Vertical load capacity	Numeric (unit)
92	MP36	Horizontal load capacity	Numeric (unit)
93	MP37	Cross panel tensile strength	Numeric (unit)
94	MP38	Adhesion by tensile bond strength at different temperatures	Alphanumeric
95	MP39	Complex stiffness/ modulus at different temperatures	Alphanumeric
96	MP40	Dynamic stiffness	Numeric (unit)
97	MP41	Dynamic stiffness /modulus	Numeric (unit)
98	MP42	Dynamic stiffness/ modulus at different temperatures	Alphanumeric
99	MP43	Fatigue life /strength	Numeric (unit)
100	MP44	Fatigue life/strength at different temperatures	Numeric (unit)
101	MP45	Fatigue strength	Numeric (unit)
102	MP46	Flexural and tensile behaviour at different temperatures	Alphanumeric
103	MP47	Low temperature cracking	Alphanumeric
104	MP48	Modulus of elasticity at different temperatures	Alphanumeric
105	MP49	Shear strength at different temperatures	Alphanumeric
106	MP50	Shear test at different temperatures	Alphanumeric
107	MP51	Tensile and compression behaviour at different temperatures	Alphanumeric
108	MP52	Tensile behavior at different temperatures	Alphanumeric
109	MP53	Tensile behaviour and elongation at different temperatures	Alphanumeric
110	MP54	Tensile strength at different temperatures	Alphanumeric
111	MP55	Thermo-mechanical fatigue life	Alphanumeric
112	MP56	Wide-width tensile test at different temperatures	Alphanumeric

Nr.	**EP**	**Energy Parameters**	**Data Type**
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
115	EP2	Frame thermal transmittance (Uf)	Numeric (unit)
116	EP3	Glass thermal transmittance (Ug)	Numeric (unit)
117	EP4	Window thermal transmittance (Uw)	Numeric (unit)
118	EP5	Linear heat transfer coefficient ΨG	Numeric (unit)
119	EP6	Thermal conductivity	Numeric (unit)
121	EP8	Visual Light Transmittance (VLT)	Numeric (-)
122	EP9	Solar Heat Gain Coefficient (SHGC)	Numeric (-)
123	EP10	Solar Absorption	Numeric (-)
124	EP11	Solar Reflectance	Numeric (-)
125	EP12	Solar Transmittance	Numeric (-)
128	EP15	Air Leakage	Alphanumeric
148	EP35	Absorptance	Numeric (-)
149	EP36	Roughness	Numeric (-)
153	EP40	Module efficiency	Numeric (-)
157	EP44	Infrared inspection	Alphanumeric
158	EP45	Internal surface temperature	Numeric (unit)

Nr.	**AP**	**Acoustic Parameters**	**Data Type**
167	AP1	Acoustic rating	Alphanumeric
168	AP2	Sound absorption	Numeric (unit)
169	AP3	Dynamic stiffness	Numeric (unit)
170	AP4	Compressibility	Numeric (unit)
171	AP5	Average apparent dynamic rigidity	Numeric (unit)
172	AP6	Resonance frequency	Numeric (unit)
173	AP7	Weighted sound reduction index	Numeric (unit)
174	AP8	Max acceleration (m/s2), SWD scales – modal analysis	Numeric (unit)

175	AP9	Building protection against vibration in the context of connections/joints between component materials and supporting structures	Alphanumeric
176	AP10	Critical damping ratio	Numeric (-)
177	AP11	RMS (root mean square) pressure	Numeric (unit)
178	AP12	Impact sound insulation	Numeric (unit)
179	AP13	Airborne sound insulation	Numeric (unit)
180	AP14	Direction-averaged junction velocity level difference for connector or for connection model	Alphanumeric

Nr.	D	Durability	Data Type
181	D1	Evaluation of influence fungi and molds on properties innovative materials	Alphanumeric
182	D2	Freeze-thaw	Alphanumeric
183	D3	Sunlight Xe	Alphanumeric
184	D4	UV radiation	Alphanumeric
185	D5	Acid rain	Alphanumeric
186	D6	Sea water or breeze	Alphanumeric
187	D7	Temperature + humidity	Alphanumeric
188	D8	SEM Electronic Microscopy	Alphanumeric
189	D9	OM Optical Microscopy	Alphanumeric
190	D10	FTIR Infrared Microscopy	Alphanumeric

Nr.	OU	Operation and Use	Data Type
206	OU1	Operating temperature range	Numeric (unit)
208	OU3	Expected life	Alphanumeric
218	OU13	Heat and humid climates	Alphanumeric
219	OU14	Temperature cycles	Alphanumeric
220	OU15	Humid and freezing nights	Alphanumeric
221	OU16	UV affectance (yellowing/discoloration,...)	Alphanumeric
222	OU17	High voltage operation (large connections/ installations)	Alphanumeric
223	OU18	Light Induced Degradation	Alphanumeric
224	OU19	Light and elevated temperature induced degradation	Alphanumeric

Nr.	FP	Fire Protection	Data Type
227	FP1	Fire Protection certificate	Alphanumeric
228	FP2	Flammability rating	Alphanumeric
229	FP3	Fragility rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric
231	FP5	Spread of flames	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	I	Installation	Data Type
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
255	I10	Preventive measures	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric
261	I16	Time of installation	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric

Nr.	LCC	LCC - LCA	Data Type
275	LCC1	Raw material supply	Alphanumeric
276	LCC2	Recycled materials supply	Alphanumeric
277	LCC3	Raw materials road transportations	Alphanumeric
278	LCC4	Product manufacturing	Alphanumeric
279	LCC5	Packaging manufacturing	Alphanumeric
280	LCC6	Fuel type for transport	Alphanumeric
281	LCC7	Vehicle consumption	Alphanumeric
282	LCC8	Vehicle type	Alphanumeric
283	LCC9	Transport distance	Numeric (unit)
284	LCC10	Capacity utilisation	Alphanumeric
285	LCC11	Wastage of materials	Alphanumeric
286	LCC12	Output materials	Alphanumeric

287	LCC13	Use	Alphanumeric
288	LCC14	Maintenance	Alphanumeric
289	LCC15	Replacement	Alphanumeric
290	LCC16	Refurbishment	Alphanumeric
291	LCC17	Operational energy use	Numeric (unit)
292	LCC18	Operationale water use	Numeric (unit)
293	LCC19	Demolition	Alphanumeric
294	LCC20	Waste processing transport	Alphanumeric
295	LCC21	Recycling	Alphanumeric
296	LCC22	Disposal	Alphanumeric
297	LCC23	Collection process	Alphanumeric
298	LCC24	Recovery system	Alphanumeric
299	LCC25	Global Warming Potential (GWP)	Numeric (unit)
300	LCC26	Ozone Depletion (ODP)	Numeric (unit)
301	LCC27	Acidification potential (AP)	Numeric (unit)
302	LCC28	Eutrophication potential (EP)	Numeric (unit)
303	LCC29	Photochemical ozone creation (POPC)	Numeric (unit)
304	LCC30	Abiotic depletion potential for non-fossil resources (ADP-elements)	Numeric (unit)
305	LCC31	Abiotic depletion potential for fossil resources (ADP-fossil fuels)	Numeric (unit)
306	LCC32	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	Numeric (unit)
307	LCC33	Use of renewable primary energy used as raw materials	Numeric (unit)
308	LCC34	Total use of renewable primary energy resources	Numeric (unit)
309	LCC35	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	Numeric (unit)
310	LCC36	Use of non-renewable primary energy used as raw materials	Numeric (unit)
311	LCC37	Total use of non-renewable primary energy resources	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
313	LCC39	Use of secondary materials	Alphanumeric
314	LCC40	Use of renewable secondary fuels	Numeric (unit)
315	LCC41	Use of non-renewable secondary fuels	Numeric (unit)
316	LCC42	Use of net fresh water	Numeric (unit)
317	LCC43	Hazardous waste disposed	Numeric (unit)
318	LCC44	Non-hazardous waste disposed	Numeric (unit)
319	LCC45	Radioactive waste disposed	Numeric (unit)
320	LCC46	Components for re-use	Alphanumeric
321	LCC47	Materials for recycling	Alphanumeric
322	LCC48	Materials for energy recovery	Alphanumeric
323	LCC49	Exported energy	Numeric (unit)
324	LCC50	Resources depletion	Alphanumeric
325	LCC51	Inert waste	Alphanumeric
326	LCC52	Life cycle phase	Alphanumeric

SC	B	Scenario B	Test and Monitoring
CS	7	Construction Segment 7	Insulation

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
10	ID10	Manufacturing code	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
26	DIM10	Mass per unit length	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)
28	DIM12	Mass density	Numeric (unit)
29	DIM13	Swing Angle	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
31	DIM15	Glass layer 1 thickness	Numeric (unit)
32	DIM16	Glass layer 2 thickness	Numeric (unit)
33	DIM17	Glass layer 3 thickness	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
35	DIM19	Glass color	Alphanumeric
36	DIM20	Is glass tempered	Boolean
37	DIM21	Is glass laminated	Boolean
38	DIM22	Is glass coated	Boolean
39	DIM23	Is glass wired	Boolean
40	DIM24	Glazing area	Numeric (-)
41	DIM25	Handle	Boolean
42	DIM26	Sill	Boolean
43	DIM27	Sill Height	Numeric (unit)
44	DIM28	Type of construction of windows	Alphanumeric
45	DIM29	Opening layout	Alphanumeric
46	DIM30	Opening style	Alphanumeric
47	DIM31	Frame depth	Numeric (unit)
48	DIM32	Frame thickness	Numeric (unit)
49	DIM33	Mullion shape	Alphanumeric
50	DIM34	Mullion dimensions	Alphanumeric
51	DIM35	Transom shape	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric
56	MF4	%mass of each materials used	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)
59	MP3	Sagging moment inertia	Numeric (unit)
60	MP4	Hogging moment inertia	Numeric (unit)

61	MP5	Young's modulus	Numeric (unit)
62	MP6	Bulk modulus	Numeric (unit)
63	MP7	Shear modulus	Numeric (unit)
64	MP8	Yield stress	Numeric (unit)
65	MP9	Shear strength	Numeric (unit)
66	MP10	Bending strength	Numeric (unit)
67	MP11	Tensile strength	Numeric (unit)
68	MP12	Poission's ratio	Numeric (-)
69	MP13	Spacer	Alphanumeric
70	MP14	Load bearing	Boolean
71	MP15	Mechanical load rating	Alphanumeric
72	MP16	Wind load resistance rating	Alphanumeric
73	MP17	Durability rating	Alphanumeric
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric
77	MP21	Bending resistance	Numeric (unit)
81	MP25	modulus of elasticity	Numeric (unit)

Nr.	EP	Energy Parameters	Data Type
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
115	EP2	Frame thermal transmittance (Uf)	Numeric (unit)
116	EP3	Glass thermal transmittance (Ug)	Numeric (unit)
117	EP4	Window thermal transmittance (Uw)	Numeric (unit)
118	EP5	Linear heat transfer coefficient ΨG	Numeric (unit)
119	EP6	Thermal conductivity	Numeric (unit)
120	EP7	Visible Light Reflectance	Numeric (-)
121	EP8	Visual Light Transmittance (VLT)	Numeric (-)
122	EP9	Solar Heat Gain Coefficient (SHGC)	Numeric (-)
123	EP10	Solar Absorption	Numeric (-)
124	EP11	Solar Reflectance	Numeric (-)
125	EP12	Solar Transmittance	Numeric (-)
126	EP13	Shading Coefficient	Numeric (-)
127	EP14	Energy Rating Scheme	Alphanumeric
128	EP15	Air Leakage	Alphanumeric
129	EP16	Air Leakage Standard	Alphanumeric
130	EP17	Water Resistance	Alphanumeric
131	EP18	Water Resistance Standard	Alphanumeric
132	EP19	Hygrothermal rating	Alphanumeric
133	EP20	Condensation Resistance	Alphanumeric
134	EP21	Condensation Resistance Standard	Alphanumeric
135	EP22	Shading elements	Boolean
136	EP23	Type of shading elements	Alphanumeric
137	EP24	Shading mechanically operated	Boolean
138	EP25	Shading elements control system	Alphanumeric
139	EP26	Integration of other systems	Alphanumeric
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric
143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric
145	EP32	Integration of control logics	Alphanumeric
146	EP33	Communication protocols	Alphanumeric
147	EP34	Integration with Building Management Systems (BMS)	Alphanumeric
148	EP35	Absorptance	Numeric (-)
149	EP36	Roughness	Numeric (-)
150	EP37	Maximum power	Numeric (unit)
151	EP38	Open-circuit voltage	Numeric (unit)
152	EP39	Short-circuit current	Numeric (unit)
153	EP40	Module efficiency	Numeric (-)
154	EP41	Solar cell type	Alphanumeric
155	EP42	Number of cells	Alphanumeric
156	EP43	Water vapor diffusion (Interstitial water vapor condensation risk and	Numeric (-)
157	EP44	Infrared inspection	Alphanumeric
158	EP45	Internal surface temperature	Numeric (unit)

Nr.	AP	Acoustic Parameters	Data Type
167	AP1	Acoustic rating	Alphanumeric

168	AP2	Sound absorption	Numeric (unit)
169	AP3	Dynamic stiffness	Numeric (unit)
170	AP4	Compressibility	Numeric (unit)
171	AP5	Average apparent dynamic rigidity	Numeric (unit)
172	AP6	Resonance frequency	Numeric (unit)
173	AP7	Weighted sound reduction index	Numeric (unit)
176	AP10	Critical damping ratio	Numeric (-)
178	AP12	Impact sound insulation	Numeric (unit)
179	AP13	Airborne sound insulation	Numeric (unit)

Nr.	D	Durability	Data Type
181	D1	Evaluation of influence fungi and molds on properties innovative materials	Alphanumeric
182	D2	Freeze-thaw	Alphanumeric
183	D3	Sunlight Xe	Alphanumeric
184	D4	UV radiation	Alphanumeric
187	D7	Temperature + humidity	Alphanumeric
188	D8	SEM Electronic Microscopy	Alphanumeric
189	D9	OM Optical Microscopy	Alphanumeric
190	D10	FTIR Infrared Microscopy	Alphanumeric

Nr.	GHG	Emission Parameters	Data Type
191	GHG1	Coating Information	Alphanumeric
192	GHG2	VOC Content	Alphanumeric
193	GHG3	Solids Content	Alphanumeric
194	GHG4	HAPs Content	Alphanumeric
195	GHG5	Minimum Transfer Efficiency	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric
197	GHG7	Maximum uncontrolled emissions	Alphanumeric
198	GHG8	Maximum controlled emissions rate	Alphanumeric
199	GHG9	Pollution control efficiency	Alphanumeric
201	GHG11	CO content	Numeric (unit)
202	GHG12	CO2 content	Numeric (unit)
203	GHG13	Additional Emissions	Alphanumeric
204	GHG14	Standard of Performance	Alphanumeric
205	GHG15	Regulations	Alphanumeric

Nr.	OU	Operation and Use	Data Type
206	OU1	Operating temperature range	Numeric (unit)
207	OU2	Minimum Operation Space	Alphanumeric
208	OU3	Expected life	Alphanumeric
209	OU4	Adjustment of service life	Alphanumeric
210	OU5	Service life duration	Numeric (unit)
211	OU6	Average failure time	Numeric (unit)
212	OU7	Security rating	Alphanumeric
216	OU11	Automatic operation	Alphanumeric
217	OU12	Operating limitations	Alphanumeric
221	OU16	UV affectance (yellowing/discoloration,...)	Alphanumeric
222	OU17	High voltage operation (large connections/ installations)	Alphanumeric
223	OU18	Light Induced Degradation	Alphanumeric
224	OU19	Light and elevated temperature induced degradation	Alphanumeric

Nr.	FP	Fire Protection	Data Type
227	FP1	Fire Protection certificate	Alphanumeric
228	FP2	Flammability rating	Alphanumeric
229	FP3	Fragility rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric
231	FP5	Spread of flames	Alphanumeric
232	FP6	Compartmentation	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	PI	Packaging Information	Data Type
237	PI1	Length of packaging unit	Alphanumeric
238	PI2	Width of packaging unit	Alphanumeric
239	PI3	Height of packaging unit	Alphanumeric
240	PI4	Weight of packaging unit	Alphanumeric
241	PI5	Contents of package	Alphanumeric

242	PI6	Special instructions	Alphanumeric
243	PI7	Container requirements	Alphanumeric
244	PI8	Wrapping requirements	Alphanumeric
245	PI9	Fragile nature	Alphanumeric

Nr.	I	Installation	Data Type
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
249	I4	Shelf life	Alphanumeric
250	I5	Nature of the risk	Alphanumeric
251	I6	Risk cause	Alphanumeric
252	I7	Risk consequence	Alphanumeric
253	I8	Risk rating	Alphanumeric
254	I9	Affects surroundings	Alphanumeric
255	I10	Preventive measures	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric
261	I16	Time of installation	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
266	M5	Priority type	Alphanumeric
267	M6	Warranty code	Numeric (-)
268	M7	Warranty contact	Alphanumeric
269	M8	Extended warranty	Alphanumeric
270	M9	Warranty content	Alphanumeric
271	M10	Warranty exclusions	Alphanumeric
272	M11	Warranty duration	Alphanumeric
273	M12	Warranty start date	Alphanumeric
274	M13	Warranty end date	Alphanumeric

Nr.	LCC	LCC - LCA	Data Type
275	LCC1	Raw material supply	Alphanumeric
276	LCC2	Recycled materials supply	Alphanumeric
277	LCC3	Raw materials road transportations	Alphanumeric
278	LCC4	Product manufacturing	Alphanumeric
279	LCC5	Packaging manufacturing	Alphanumeric
280	LCC6	Fuel type for transport	Alphanumeric
281	LCC7	Vehicle consumption	Alphanumeric
282	LCC8	Vehicle type	Alphanumeric
283	LCC9	Transport distance	Numeric (unit)
284	LCC10	Capacity utilisation	Alphanumeric
285	LCC11	Wastage of materials	Alphanumeric
286	LCC12	Output materials	Alphanumeric
287	LCC13	Use	Alphanumeric
288	LCC14	Maintenance	Alphanumeric
289	LCC15	Replacement	Alphanumeric
290	LCC16	Refurbishment	Alphanumeric
291	LCC17	Operational energy use	Numeric (unit)
292	LCC18	Operationale water use	Numeric (unit)
293	LCC19	Demolition	Alphanumeric
294	LCC20	Waste processing transport	Alphanumeric
295	LCC21	Recycling	Alphanumeric
296	LCC22	Disposal	Alphanumeric
297	LCC23	Collection process	Alphanumeric
298	LCC24	Recovery system	Alphanumeric
299	LCC25	Global Warming Potential (GWP)	Numeric (unit)
300	LCC26	Ozone Depletion (ODP)	Numeric (unit)
301	LCC27	Acidification potential (AP)	Numeric (unit)
302	LCC28	Eutrophication potential (EP)	Numeric (unit)
303	LCC29	Photochemical ozone creation (POPC)	Numeric (unit)
304	LCC30	Abiotic depletion potential for non-fossil resources (ADP-elements)	Numeric (unit)
305	LCC31	Abiotic depletion potential for fossil resources (ADP-fossil fuels)	Numeric (unit)

306	LCC32	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	Numeric (unit)
307	LCC33	Use of renewable primary energy used as raw materials	Numeric (unit)
308	LCC34	Total use of renewable primary energy resources	Numeric (unit)
309	LCC35	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	Numeric (unit)
310	LCC36	Use of non-renewable primary energy used as raw materials	Numeric (unit)
311	LCC37	Total use of non-renewable primary energy resources	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
313	LCC39	Use of secondary materials	Alphanumeric
314	LCC40	Use of renewable secondary fuels	Numeric (unit)
315	LCC41	Use of non-renewable secondary fuels	Numeric (unit)
316	LCC42	Use of net fresh water	Numeric (unit)
317	LCC43	Hazardous waste disposed	Numeric (unit)
318	LCC44	Non-hazardous waste disposed	Numeric (unit)
319	LCC45	Radioactive waste disposed	Numeric (unit)
320	LCC46	Components for re-use	Alphanumeric
321	LCC47	Materials for recycling	Alphanumeric
322	LCC48	Materials for energy recovery	Alphanumeric
323	LCC49	Exported energy	Numeric (unit)
324	LCC50	Resources depletion	Alphanumeric
325	LCC51	Inert waste	Alphanumeric
326	LCC52	Life cycle phase	Alphanumeric

SC	B	Scenario B	Test and Monitoring
CS	8	Construction Segment 8	Green roofs and green façades

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
10	ID10	Manufacturing code	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
26	DIM10	Mass per unit length	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)
28	DIM12	Mass density	Numeric (unit)
29	DIM13	Swing Angle	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
31	DIM15	Glass layer 1 thickness	Numeric (unit)
32	DIM16	Glass layer 2 thickness	Numeric (unit)
33	DIM17	Glass layer 3 thickness	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
35	DIM19	Glass color	Alphanumeric
36	DIM20	Is glass tempered	Boolean
37	DIM21	Is glass laminated	Boolean
38	DIM22	Is glass coated	Boolean
39	DIM23	Is glass wired	Boolean
40	DIM24	Glazing area	Numeric (-)
41	DIM25	Handle	Boolean
42	DIM26	Sill	Boolean
43	DIM27	Sill Height	Numeric (unit)
44	DIM28	Type of construction of windows	Alphanumeric
45	DIM29	Opening layout	Alphanumeric
46	DIM30	Opening style	Alphanumeric
47	DIM31	Frame depth	Numeric (unit)
48	DIM32	Frame thickness	Numeric (unit)
49	DIM33	Mullion shape	Alphanumeric
50	DIM34	Mullion dimensions	Alphanumeric
51	DIM35	Transom shape	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric
56	MF4	%mass of each materials used	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)
59	MP3	Sagging moment inertia	Numeric (unit)
60	MP4	Hogging moment inertia	Numeric (unit)

61	MP5	Young's modulus	Numeric (unit)
62	MP6	Bulk modulus	Numeric (unit)
63	MP7	Shear modulus	Numeric (unit)
64	MP8	Yield stress	Numeric (unit)
65	MP9	Shear strength	Numeric (unit)
66	MP10	Bending strength	Numeric (unit)
67	MP11	Tensile strength	Numeric (unit)
68	MP12	Poission's ratio	Numeric (-)
69	MP13	Spacer	Alphanumeric
70	MP14	Load bearing	Boolean
71	MP15	Mechanical load rating	Alphanumeric
72	MP16	Wind load resistance rating	Alphanumeric
73	MP17	Durability rating	Alphanumeric
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric
77	MP21	Bending resistance	Numeric (unit)
81	MP25	modulus of elasticity	Numeric (unit)
82	MP26	Elongation LD/TD – longitudinal/transverse direction	Numeric (unit)
83	MP27	Maximum tensile force LD/TD – longitudinal/transverse direction	Numeric (unit)
84	MP28	Resistance to racking	Numeric (unit)
85	MP29	Resistance to static torsion	Numeric (unit)
87	MP31	Resistance to tearing LD/TD – longitudinal/transverse direction	Numeric (unit)
88	MP32	Shear resistance	Numeric (unit)
89	MP33	Strength of corners	Numeric (unit)
91	MP35	Vertical load capacity	Numeric (unit)
92	MP36	Horizontal load capacity	Numeric (unit)
93	MP37	Cross panel tensile strength	Numeric (unit)

Nr.	**EP**	**Energy Parameters**	**Data Type**
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
115	EP2	Frame thermal transmittance (Uf)	Numeric (unit)
116	EP3	Glass thermal transmittance (Ug)	Numeric (unit)
117	EP4	Window thermal transmittance (Uw)	Numeric (unit)
118	EP5	Linear heat transfer coefficient ΨG	Numeric (unit)
119	EP6	Thermal conductivity	Numeric (unit)
120	EP7	Visible Light Reflectance	Numeric (-)
121	EP8	Visual Light Transmittance (VLT)	Numeric (-)
122	EP9	Solar Heat Gain Coefficient (SHGC)	Numeric (-)
123	EP10	Solar Absorption	Numeric (-)
124	EP11	Solar Reflectance	Numeric (-)
125	EP12	Solar Transmittance	Numeric (-)
126	EP13	Shading Coefficient	Numeric (-)
127	EP14	Energy Rating Scheme	Alphanumeric
128	EP15	Air Leakage	Alphanumeric
129	EP16	Air Leakage Standard	Alphanumeric
130	EP17	Water Resistance	Alphanumeric
131	EP18	Water Resistance Standard	Alphanumeric
132	EP19	Hygrothermal rating	Alphanumeric
133	EP20	Condensation Resistance	Alphanumeric
134	EP21	Condensation Resistance Standard	Alphanumeric
135	EP22	Shading elements	Boolean
136	EP23	Type of shading elements	Alphanumeric
137	EP24	Shading mechanically operated	Boolean
138	EP25	Shading elements control system	Alphanumeric
139	EP26	Integration of other systems	Alphanumeric
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric
143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric
145	EP32	Integration of control logics	Alphanumeric
146	EP33	Communication protocols	Alphanumeric
147	EP34	Integration with Building Management Systems (BMS)	Alphanumeric
148	EP35	Absorptance	Numeric (-)
149	EP36	Roughness	Numeric (-)

150	EP37	Maximum power	Numeric (unit)
151	EP38	Open-circuit voltage	Numeric (unit)
152	EP39	Short-circuit current	Numeric (unit)
153	EP40	Module efficiency	Numeric (-)
154	EP41	Solar cell type	Alphanumeric
155	EP42	Number of cells	Alphanumeric
156	EP43	Water vapor diffusion (Interstitial water vapor condensation risk and	Numeric (-)
157	EP44	Infrared inspection	Alphanumeric
158	EP45	Internal surface temperature	Numeric (unit)

Nr.	AP	Acoustic Parameters	Data Type
167	AP1	Acoustic rating	Alphanumeric
168	AP2	Sound absorption	Numeric (unit)
169	AP3	Dynamic stiffness	Numeric (unit)
170	AP4	Compressibility	Numeric (unit)
171	AP5	Average apparent dynamic rigidity	Numeric (unit)
172	AP6	Resonance frequency	Numeric (unit)
173	AP7	Weighted sound reduction index	Numeric (unit)
178	AP12	Impact sound insulation	Numeric (unit)
179	AP13	Airborne sound insulation	Numeric (unit)

Nr.	D	Durability	Data Type
181	D1	Evaluation of influence fungi and molds on properties innovative materials	Alphanumeric
182	D2	Freeze-thaw	Alphanumeric
183	D3	Sunlight Xe	Alphanumeric
184	D4	UV radiation	Alphanumeric
185	D5	Acid rain	Alphanumeric
187	D7	Temperature + humidity	Alphanumeric
188	D8	SEM Electronic Microscopy	Alphanumeric
189	D9	OM Optical Microscopy	Alphanumeric
190	D10	FTIR Infrared Microscopy	Alphanumeric

Nr.	GHG	Emission Parameters	Data Type
191	GHG1	Coating Information	Alphanumeric
192	GHG2	VOC Content	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric
197	GHG7	Maximum uncontrolled emissions	Alphanumeric
198	GHG8	Maximum controlled emissions rate	Alphanumeric
199	GHG9	Pollution control efficiency	Alphanumeric
201	GHG11	CO content	Numeric (unit)
202	GHG12	CO2 content	Numeric (unit)
203	GHG13	Additional Emissions	Alphanumeric
204	GHG14	Standard of Performance	Alphanumeric
205	GHG15	Regulations	Alphanumeric

Nr.	OU	Operation and Use	Data Type
206	OU1	Operating temperature range	Numeric (unit)
207	OU2	Minimum Operation Space	Alphanumeric
208	OU3	Expected life	Alphanumeric
209	OU4	Adjustment of service life	Alphanumeric
210	OU5	Service life duration	Numeric (unit)
211	OU6	Average failure time	Numeric (unit)
212	OU7	Security rating	Alphanumeric
216	OU11	Automatic operation	Alphanumeric
217	OU12	Operating limitations	Alphanumeric
218	OU13	Heat and humid climates	Alphanumeric
219	OU14	Temperature cycles	Alphanumeric
220	OU15	Humid and freezing nights	Alphanumeric
221	OU16	UV affectance (yellowing/discoloration,...)	Alphanumeric
222	OU17	High voltage operation (large connections/ installations)	Alphanumeric
223	OU18	Light Induced Degradation	Alphanumeric
224	OU19	Light and elevated temperature induced degradation	Alphanumeric

Nr.	FP	Fire Protection	Data Type
227	FP1	Fire Protection certificate	Alphanumeric
228	FP2	Flammability rating	Alphanumeric
229	FP3	Fragility rating	Alphanumeric

230	FP4	Combustibility	Alphanumeric
231	FP5	Spread of flames	Alphanumeric
232	FP6	Compartmentation	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	PI	Packaging Information	Data Type
237	PI1	Length of packaging unit	Alphanumeric
238	PI2	Width of packaging unit	Alphanumeric
239	PI3	Height of packaging unit	Alphanumeric
240	PI4	Weight of packaging unit	Alphanumeric
241	PI5	Contents of package	Alphanumeric
242	PI6	Special instructions	Alphanumeric
243	PI7	Container requirements	Alphanumeric
244	PI8	Wrapping requirements	Alphanumeric
245	PI9	Fragile nature	Alphanumeric

Nr.	I	Installation	Data Type
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
249	I4	Shelf life	Alphanumeric
250	I5	Nature of the risk	Alphanumeric
251	I6	Risk cause	Alphanumeric
252	I7	Risk consequence	Alphanumeric
253	I8	Risk rating	Alphanumeric
254	I9	Affects surroundings	Alphanumeric
255	I10	Preventive measures	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric
261	I16	Time of installation	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
266	M5	Priority type	Alphanumeric
267	M6	Warranty code	Numeric (-)
268	M7	Warranty contact	Alphanumeric
269	M8	Extended warranty	Alphanumeric
270	M9	Warranty content	Alphanumeric
271	M10	Warranty exclusions	Alphanumeric
272	M11	Warranty duration	Alphanumeric
273	M12	Warranty start date	Alphanumeric
274	M13	Warranty end date	Alphanumeric

Nr.	LCC	LCC - LCA	Data Type
275	LCC1	Raw material supply	Alphanumeric
276	LCC2	Recycled materials supply	Alphanumeric
277	LCC3	Raw materials road transportations	Alphanumeric
278	LCC4	Product manufacturing	Alphanumeric
279	LCC5	Packaging manufacturing	Alphanumeric
280	LCC6	Fuel type for transport	Alphanumeric
281	LCC7	Vehicle consumption	Alphanumeric
282	LCC8	Vehicle type	Alphanumeric
283	LCC9	Transport distance	Numeric (unit)
284	LCC10	Capacity utilisation	Alphanumeric
285	LCC11	Wastage of materials	Alphanumeric
286	LCC12	Output materials	Alphanumeric
287	LCC13	Use	Alphanumeric
288	LCC14	Maintenance	Alphanumeric
289	LCC15	Replacement	Alphanumeric
290	LCC16	Refurbishment	Alphanumeric
291	LCC17	Operational energy use	Numeric (unit)
292	LCC18	Operationale water use	Numeric (unit)
293	LCC19	Demolition	Alphanumeric
294	LCC20	Waste processing transport	Alphanumeric
295	LCC21	Recycling	Alphanumeric

296	LCC22	Disposal	Alphanumeric
297	LCC23	Collection process	Alphanumeric
298	LCC24	Recovery system	Alphanumeric
299	LCC25	Global Warming Potential (GWP)	Numeric (unit)
300	LCC26	Ozone Depletion (ODP)	Numeric (unit)
301	LCC27	Acidification potential (AP)	Numeric (unit)
302	LCC28	Eutrophication potential (EP)	Numeric (unit)
303	LCC29	Photochemical ozone creation (POPC)	Numeric (unit)
304	LCC30	Abiotic depletion potential for non-fossil resources (ADP-elements)	Numeric (unit)
305	LCC31	Abiotic depletion potential for fossil resources (ADP-fossil fuels)	Numeric (unit)
306	LCC32	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	Numeric (unit)
307	LCC33	Use of renewable primary energy used as raw materials	Numeric (unit)
308	LCC34	Total use of renewable primary energy resources	Numeric (unit)
309	LCC35	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	Numeric (unit)
310	LCC36	Use of non-renewable primary energy used as raw materials	Numeric (unit)
311	LCC37	Total use of non-renewable primary energy resources	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
313	LCC39	Use of secondary materials	Alphanumeric
314	LCC40	Use of renewable secondary fuels	Numeric (unit)
315	LCC41	Use of non-renewable secondary fuels	Numeric (unit)
316	LCC42	Use of net fresh water	Numeric (unit)
317	LCC43	Hazardous waste disposed	Numeric (unit)
318	LCC44	Non-hazardous waste disposed	Numeric (unit)
319	LCC45	Radioactive waste disposed	Numeric (unit)
320	LCC46	Components for re-use	Alphanumeric
321	LCC47	Materials for recycling	Alphanumeric
322	LCC48	Materials for energy recovery	Alphanumeric
323	LCC49	Exported energy	Numeric (unit)
324	LCC50	Resources depletion	Alphanumeric
325	LCC51	Inert waste	Alphanumeric
326	LCC52	Life cycle phase	Alphanumeric

SC	B	Scenario B	Test and Monitoring
CS	9	Construction Segment 9	Active solar energy systems

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
10	ID10	Manufacturing code	Alphanumeric
11	ID11	Assembly site	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
26	DIM10	Mass per unit length	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)
28	DIM12	Mass density	Numeric (unit)
29	DIM13	Swing Angle	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
31	DIM15	Glass layer 1 thickness	Numeric (unit)
32	DIM16	Glass layer 2 thickness	Numeric (unit)
33	DIM17	Glass layer 3 thickness	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
35	DIM19	Glass color	Alphanumeric
36	DIM20	Is glass tempered	Boolean
37	DIM21	Is glass laminated	Boolean
38	DIM22	Is glass coated	Boolean
39	DIM23	Is glass wired	Boolean
40	DIM24	Glazing area	Numeric (-)
41	DIM25	Handle	Boolean
42	DIM26	Sill	Boolean
43	DIM27	Sill Height	Numeric (unit)
44	DIM28	Type of construction of windows	Alphanumeric
45	DIM29	Opening layout	Alphanumeric
46	DIM30	Opening style	Alphanumeric
47	DIM31	Frame depth	Numeric (unit)
48	DIM32	Frame thickness	Numeric (unit)
49	DIM33	Mullion shape	Alphanumeric
50	DIM34	Mullion dimensions	Alphanumeric
51	DIM35	Transom shape	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric
56	MF4	%mass of each materials used	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)
59	MP3	Sagging moment inertia	Numeric (unit)

60	MP4	Hogging moment inertia	Numeric (unit)
61	MP5	Young's modulus	Numeric (unit)
62	MP6	Bulk modulus	Numeric (unit)
63	MP7	Shear modulus	Numeric (unit)
64	MP8	Yield stress	Numeric (unit)
65	MP9	Shear strength	Numeric (unit)
66	MP10	Bending strength	Numeric (unit)
67	MP11	Tensile strength	Numeric (unit)
68	MP12	Poission's ratio	Numeric (-)
69	MP13	Spacer	Alphanumeric
70	MP14	Load bearing	Boolean
71	MP15	Mechanical load rating	Alphanumeric
72	MP16	Wind load resistance rating	Alphanumeric
73	MP17	Durability rating	Alphanumeric
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric
77	MP21	Bending resistance	Numeric (unit)
80	MP24	Breaking strength	Numeric (unit)
81	MP25	modulus of elasticity	Numeric (unit)
82	MP26	Elongation LD/TD – longitudinal/transverse direction	Numeric (unit)
83	MP27	Maximum tensile force LD/TD – longitudinal/transverse direction	Numeric (unit)
84	MP28	Resistance to racking	Numeric (unit)
85	MP29	Resistance to static torsion	Numeric (unit)
87	MP31	Resistance to tearing LD/TD – longitudinal/transverse direction	Numeric (unit)
88	MP32	Shear resistance	Numeric (unit)
89	MP33	Strength of corners	Numeric (unit)
91	MP35	Vertical load capacity	Numeric (unit)
92	MP36	Horizontal load capacity	Numeric (unit)
93	MP37	Cross panel tensile strength	Numeric (unit)
94	MP38	Adhesion by tensile bond strength at different temperatures	Alphanumeric
95	MP39	Complex stiffness/ modulus at different temperatures	Alphanumeric
96	MP40	Dynamic stiffness	Numeric (unit)
97	MP41	Dynamic stiffness /modulus	Numeric (unit)
98	MP42	Dynamic stiffness/ modulus at different temperatures	Alphanumeric
99	MP43	Fatigue life /strength	Numeric (unit)
100	MP44	Fatigue life/strength at different temperatures	Numeric (unit)
101	MP45	Fatigue strength	Numeric (unit)
102	MP46	Flexural and tensile behaviour at different temperatures	Alphanumeric
103	MP47	Low temperature cracking	Alphanumeric
104	MP48	Modulus of elasticity at different temperatures	Alphanumeric
105	MP49	Shear strength at different temperatures	Alphanumeric
106	MP50	Shear test at different temperatures	Alphanumeric
107	MP51	Tensile and compression behaviour at different temperatures	Alphanumeric
108	MP52	Tensile behavior at different temperatures	Alphanumeric
109	MP53	Tensile behaviour and elongation at different temperatures	Alphanumeric
110	MP54	Tensile strength at different temperatures	Alphanumeric
111	MP55	Thermo-mechanical fatigue life	Alphanumeric
112	MP56	Wide-width tensile test at different temperatures	Alphanumeric
113	MP57	Dynamic test of façade system in out of plane direction	Boolean

Nr.	**EP**	**Energy Parameters**	**Data Type**
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
115	EP2	Frame thermal transmittance (Uf)	Numeric (unit)
116	EP3	Glass thermal transmittance (Ug)	Numeric (unit)
117	EP4	Window thermal transmittance (Uw)	Numeric (unit)
118	EP5	Linear heat transfer coefficient ΨG	Numeric (unit)
119	EP6	Thermal conductivity	Numeric (unit)
120	EP7	Visible Light Reflectance	Numeric (-)
121	EP8	Visual Light Transmittance (VLT)	Numeric (-)
122	EP9	Solar Heat Gain Coefficient (SHGC)	Numeric (-)
123	EP10	Solar Absorption	Numeric (-)
124	EP11	Solar Reflectance	Numeric (-)
125	EP12	Solar Transmittance	Numeric (-)
126	EP13	Shading Coefficient	Numeric (-)
127	EP14	Energy Rating Scheme	Alphanumeric

128	EP15	Air Leakage	Alphanumeric
129	EP16	Air Leakage Standard	Alphanumeric
130	EP17	Water Resistance	Alphanumeric
131	EP18	Water Resistance Standard	Alphanumeric
132	EP19	Hygrothermal rating	Alphanumeric
133	EP20	Condensation Resistance	Alphanumeric
134	EP21	Condensation Resistance Standard	Alphanumeric
135	EP22	Shading elements	Boolean
136	EP23	Type of shading elements	Alphanumeric
137	EP24	Shading mechanically operated	Boolean
138	EP25	Shading elements control system	Alphanumeric
139	EP26	Integration of other systems	Alphanumeric
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric
143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric
145	EP32	Integration of control logics	Alphanumeric
146	EP33	Communication protocols	Alphanumeric
147	EP34	Integration with Building Management Systems (BMS)	Alphanumeric
148	EP35	Absorptance	Numeric (-)
149	EP36	Roughness	Numeric (-)
150	EP37	Maximum power	Numeric (unit)
151	EP38	Open-circuit voltage	Numeric (unit)
152	EP39	Short-circuit current	Numeric (unit)
153	EP40	Module efficiency	Numeric (-)
154	EP41	Solar cell type	Alphanumeric
155	EP42	Number of cells	Alphanumeric
157	EP44	Infrared inspection	Alphanumeric
159	EP46	Yearly/Monthly Energy Yield facing S	Numeric (unit)
160	EP47	Monthly Energy Yield facing N	Numeric (unit)
161	EP48	Monthly Energy Yield facing E	Numeric (unit)
162	EP49	Monthly Energy Yield facing W	Numeric (unit)
163	EP50	Monthly Energy Yield facing SE	Numeric (unit)
164	EP51	Monthly Energy Yield facing SW	Numeric (unit)
165	EP52	Monthly Energy Yield facing NE	Numeric (unit)
166	EP53	Monthly Energy Yield facing NW	Numeric (unit)

Nr.	**AP**	**Acoustic Parameters**	**Data Type**
167	AP1	Acoustic rating	Alphanumeric
168	AP2	Sound absorption	Numeric (unit)
169	AP3	Dynamic stiffness	Numeric (unit)
170	AP4	Compressibility	Numeric (unit)
171	AP5	Average apparent dynamic rigidity	Numeric (unit)
172	AP6	Resonance frequency	Numeric (unit)
173	AP7	Weighted sound reduction index	Numeric (unit)
178	AP12	Impact sound insulation	Numeric (unit)
179	AP13	Airborne sound insulation	Numeric (unit)

Nr.	**D**	**Durability**	**Data Type**
181	D1	Evaluation of influence fungi and molds on properties innovative materials	Alphanumeric
182	D2	Freeze-thaw	Alphanumeric
183	D3	Sunlight Xe	Alphanumeric
184	D4	UV radiation	Alphanumeric
187	D7	Temperature + humidity	Alphanumeric
188	D8	SEM Electronic Microscopy	Alphanumeric
189	D9	OM Optical Microscopy	Alphanumeric
190	D10	FTIR Infrared Microscopy	Alphanumeric

Nr.	**GHG**	**Emission Parameters**	**Data Type**
191	GHG1	Coating Information	Alphanumeric
192	GHG2	VOC Content	Alphanumeric
193	GHG3	Solids Content	Alphanumeric
194	GHG4	HAPs Content	Alphanumeric
195	GHG5	Minimum Transfer Efficiency	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric
197	GHG7	Maximum uncontrolled emissions	Alphanumeric

198	GHG8	Maximum controlled emissions rate	Alphanumeric
199	GHG9	Pollution control efficiency	Alphanumeric
203	GHG13	Additional Emissions	Alphanumeric
204	GHG14	Standard of Performance	Alphanumeric
205	GHG15	Regulations	Alphanumeric

Nr.	OU	Operation and Use	Data Type
206	OU1	Operating temperature range	Numeric (unit)
207	OU2	Minimum Operation Space	Alphanumeric
208	OU3	Expected life	Alphanumeric
209	OU4	Adjustment of service life	Alphanumeric
210	OU5	Service life duration	Numeric (unit)
211	OU6	Average failure time	Numeric (unit)
216	OU11	Automatic operation	Alphanumeric
217	OU12	Operating limitations	Alphanumeric
218	OU13	Heat and humid climates	Alphanumeric
219	OU14	Temperature cycles	Alphanumeric
220	OU15	Humid and freezing nights	Alphanumeric
221	OU16	UV affectance (yellowing/discoloration,...)	Alphanumeric
222	OU17	High voltage operation (large connections/ installations)	Alphanumeric
223	OU18	Light Induced Degradation	Alphanumeric
224	OU19	Light and elevated temperature induced degradation	Alphanumeric
225	OU20	Shadowing tolerance	Alphanumeric
226	OU21	Hot Spot affectance	Alphanumeric

Nr.	FP	Fire Protection	Data Type
227	FP1	Fire Protection certificate	Alphanumeric
228	FP2	Flammability rating	Alphanumeric
229	FP3	Fragility rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric
231	FP5	Spread of flames	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	PI	Packaging Information	Data Type
242	PI6	Special instructions	Alphanumeric

Nr.	I	Installation	Data Type
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
255	I10	Preventive measures	Alphanumeric
256	I11	Installation space	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric
261	I16	Time of installation	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric

Nr.	LCC	LCC - LCA	Data Type
275	LCC1	Raw material supply	Alphanumeric
276	LCC2	Recycled materials supply	Alphanumeric
277	LCC3	Raw materials road transportations	Alphanumeric
278	LCC4	Product manufacturing	Alphanumeric
279	LCC5	Packaging manufacturing	Alphanumeric
280	LCC6	Fuel type for transport	Alphanumeric
281	LCC7	Vehicle consumption	Alphanumeric
282	LCC8	Vehicle type	Alphanumeric
283	LCC9	Transport distance	Numeric (unit)
284	LCC10	Capacity utilisation	Alphanumeric
285	LCC11	Wastage of materials	Alphanumeric
286	LCC12	Output materials	Alphanumeric
287	LCC13	Use	Alphanumeric
288	LCC14	Maintenance	Alphanumeric
289	LCC15	Replacement	Alphanumeric

290	LCC16	Refurbishment	Alphanumeric
291	LCC17	Operational energy use	Numeric (unit)
292	LCC18	Operationale water use	Numeric (unit)
293	LCC19	Demolition	Alphanumeric
294	LCC20	Waste processing transport	Alphanumeric
295	LCC21	Recycling	Alphanumeric
296	LCC22	Disposal	Alphanumeric
297	LCC23	Collection process	Alphanumeric
298	LCC24	Recovery system	Alphanumeric
299	LCC25	Global Warming Potential (GWP)	Numeric (unit)
300	LCC26	Ozone Depletion (ODP)	Numeric (unit)
301	LCC27	Acidification potential (AP)	Numeric (unit)
302	LCC28	Eutrophication potential (EP)	Numeric (unit)
303	LCC29	Photochemical ozone creation (POPC)	Numeric (unit)
304	LCC30	Abiotic depletion potential for non-fossil resources (ADP-elements)	Numeric (unit)
305	LCC31	Abiotic depletion potential for fossil resources (ADP-fossil fuels)	Numeric (unit)
306	LCC32	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	Numeric (unit)
307	LCC33	Use of renewable primary energy used as raw materials	Numeric (unit)
308	LCC34	Total use of renewable primary energy resources	Numeric (unit)
309	LCC35	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	Numeric (unit)
310	LCC36	Use of non-renewable primary energy used as raw materials	Numeric (unit)
311	LCC37	Total use of non-renewable primary energy resources	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
313	LCC39	Use of secondary materials	Alphanumeric
314	LCC40	Use of renewable secondary fuels	Numeric (unit)
315	LCC41	Use of non-renewable secondary fuels	Numeric (unit)
316	LCC42	Use of net fresh water	Numeric (unit)
317	LCC43	Hazardous waste disposed	Numeric (unit)
318	LCC44	Non-hazardous waste disposed	Numeric (unit)
319	LCC45	Radioactive waste disposed	Numeric (unit)
320	LCC46	Components for re-use	Alphanumeric
321	LCC47	Materials for recycling	Alphanumeric
322	LCC48	Materials for energy recovery	Alphanumeric
323	LCC49	Exported energy	Numeric (unit)
324	LCC50	Resources depletion	Alphanumeric
325	LCC51	Inert waste	Alphanumeric
326	LCC52	Life cycle phase	Alphanumeric

SC	C	Scenario C	Certification Process
CS	1	Construction Segment 1	Multifunctional, multilayer façade systems

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
10	ID10	Manufacturing code	Alphanumeric
11	ID11	Assembly site	Alphanumeric
12	ID12	Assembly code	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
26	DIM10	Mass per unit length	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)
28	DIM12	Mass density	Numeric (unit)
29	DIM13	Swing Angle	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
31	DIM15	Glass layer 1 thickness	Numeric (unit)
32	DIM16	Glass layer 2 thickness	Numeric (unit)
33	DIM17	Glass layer 3 thickness	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
35	DIM19	Glass color	Alphanumeric
36	DIM20	Is glass tempered	Boolean
37	DIM21	Is glass laminated	Boolean
38	DIM22	Is glass coated	Boolean
39	DIM23	Is glass wired	Boolean
40	DIM24	Glazing area	Numeric (-)
41	DIM25	Handle	Boolean
42	DIM26	Sill	Boolean
43	DIM27	Sill Height	Numeric (unit)
44	DIM28	Type of construction of windows	Alphanumeric
45	DIM29	Opening layout	Alphanumeric
46	DIM30	Opening style	Alphanumeric
47	DIM31	Frame depth	Numeric (unit)
48	DIM32	Frame thickness	Numeric (unit)
49	DIM33	Mullion shape	Alphanumeric
50	DIM34	Mullion dimensions	Alphanumeric
51	DIM35	Transom shape	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric
56	MF4	%mass of each materials used	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)

58	MP2	Hogging moment capacity	Numeric (unit)
59	MP3	Sagging moment inertia	Numeric (unit)
60	MP4	Hogging moment inertia	Numeric (unit)
61	MP5	Young's modulus	Numeric (unit)
62	MP6	Bulk modulus	Numeric (unit)
63	MP7	Shear modulus	Numeric (unit)
64	MP8	Yield stress	Numeric (unit)
65	MP9	Shear strength	Numeric (unit)
66	MP10	Bending strength	Numeric (unit)
67	MP11	Tensile strength	Numeric (unit)
68	MP12	Poission's ratio	Numeric (-)
69	MP13	Spacer	Alphanumeric
70	MP14	Load bearing	Boolean
71	MP15	Mechanical load rating	Alphanumeric
72	MP16	Wind load resistance rating	Alphanumeric
73	MP17	Durability rating	Alphanumeric
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric
77	MP21	Bending resistance	Numeric (unit)
78	MP22	Bond properties from single lap shear test	Alphanumeric
79	MP23	Bond strength by pull-off	Numeric (unit)
80	MP24	Breaking strength	Numeric (unit)
81	MP25	modulus of elasticity	Numeric (unit)
82	MP26	Elongation LD/TD – longitudinal/transverse direction	Numeric (unit)
83	MP27	Maximum tensile force LD/TD – longitudinal/transverse direction	Numeric (unit)
84	MP28	Resistance to racking	Numeric (unit)
85	MP29	Resistance to static torsion	Numeric (unit)
86	MP30	Peel adhesion	Alphanumeric
87	MP31	Resistance to tearing LD/TD – longitudinal/transverse direction	Numeric (unit)
88	MP32	Shear resistance	Numeric (unit)
89	MP33	Strength of corners	Numeric (unit)
91	MP35	Vertical load capacity	Numeric (unit)
92	MP36	Horizontal load capacity	Numeric (unit)
93	MP37	Cross panel tensile strength	Numeric (unit)
95	MP39	Complex stiffness/ modulus at different temperatures	Alphanumeric
96	MP40	Dynamic stiffness	Numeric (unit)
97	MP41	Dynamic stiffness /modulus	Numeric (unit)
98	MP42	Dynamic stiffness/ modulus at different temperatures	Alphanumeric
99	MP43	Fatigue life /strength	Numeric (unit)
100	MP44	Fatigue life/strength at different temperatures	Numeric (unit)
101	MP45	Fatigue strength	Numeric (unit)
102	MP46	Flexural and tensile behaviour at different temperatures	Alphanumeric
103	MP47	Low temperature cracking	Alphanumeric
104	MP48	Modulus of elasticity at different temperatures	Alphanumeric
105	MP49	Shear strength at different temperatures	Alphanumeric
106	MP50	Shear test at different temperatures	Alphanumeric
107	MP51	Tensile and compression behaviour at different temperatures	Alphanumeric
108	MP52	Tensile behavior at different temperatures	Alphanumeric
109	MP53	Tensile behaviour and elongation at different temperatures	Alphanumeric
110	MP54	Tensile strength at different temperatures	Alphanumeric
111	MP55	Thermo-mechanical fatigue life	Alphanumeric
112	MP56	Wide-width tensile test at different temperatures	Alphanumeric
113	MP57	Dynamic test of façade system in out of plane direction	Boolean

Nr.	**EP**	**Energy Parameters**	**Data Type**
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
115	EP2	Frame thermal transmittance (Uf)	Numeric (unit)
116	EP3	Glass thermal transmittance (Ug)	Numeric (unit)
117	EP4	Window thermal transmittance (Uw)	Numeric (unit)
118	EP5	Linear heat transfer coefficient ΨG	Numeric (unit)
119	EP6	Thermal conductivity	Numeric (unit)
120	EP7	Visible Light Reflectance	Numeric (-)
121	EP8	Visual Light Transmittance (VLT)	Numeric (-)
122	EP9	Solar Heat Gain Coefficient (SHGC)	Numeric (-)

123	EP10	Solar Absorption	Numeric (-)
124	EP11	Solar Reflectance	Numeric (-)
125	EP12	Solar Transmittance	Numeric (-)
126	EP13	Shading Coefficient	Numeric (-)
127	EP14	Energy Rating Scheme	Alphanumeric
128	EP15	Air Leakage	Alphanumeric
129	EP16	Air Leakage Standard	Alphanumeric
130	EP17	Water Resistance	Alphanumeric
131	EP18	Water Resistance Standard	Alphanumeric
132	EP19	Hygrothermal rating	Alphanumeric
133	EP20	Condensation Resistance	Alphanumeric
134	EP21	Condensation Resistance Standard	Alphanumeric
135	EP22	Shading elements	Boolean
136	EP23	Type of shading elements	Alphanumeric
137	EP24	Shading mechanically operated	Boolean
138	EP25	Shading elements control system	Alphanumeric
139	EP26	Integration of other systems	Alphanumeric
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric
143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric
145	EP32	Integration of control logics	Alphanumeric
146	EP33	Communication protocols	Alphanumeric
147	EP34	Integration with Building Management Systems (BMS)	Alphanumeric
148	EP35	Absorptance	Numeric (-)
149	EP36	Roughness	Numeric (-)
150	EP37	Maximum power	Numeric (unit)
151	EP38	Open-circuit voltage	Numeric (unit)
152	EP39	Short-circuit current	Numeric (unit)
153	EP40	Module efficiency	Numeric (-)
154	EP41	Solar cell type	Alphanumeric
155	EP42	Number of cells	Alphanumeric
156	EP43	Water vapor diffusion (Interstitial water vapor condensation risk and	Numeric (-)

Nr.	**AP**	**Acoustic Parameters**	**Data Type**
167	AP1	Acoustic rating	Alphanumeric
168	AP2	Sound absorption	Numeric (unit)
169	AP3	Dynamic stiffness	Numeric (unit)
170	AP4	Compressibility	Numeric (unit)
171	AP5	Average apparent dynamic rigidity	Numeric (unit)
172	AP6	Resonance frequency	Numeric (unit)
173	AP7	Weighted sound reduction index	Numeric (unit)
174	AP8	Max acceleration (m/s2), SWD scales – modal analysis	Numeric (unit)
175	AP9	Building protection against vibration in the context of connections/joints between component materials and supporting structures	Alphanumeric
178	AP12	Impact sound insulation	Numeric (unit)
179	AP13	Airborne sound insulation	Numeric (unit)

Nr.	**D**	**Durability**	**Data Type**
181	D1	Evaluation of influence fungi and molds on properties innovative materials	Alphanumeric
182	D2	Freeze-thaw	Alphanumeric
184	D4	UV radiation	Alphanumeric
187	D7	Temperature + humidity	Alphanumeric
188	D8	SEM Electronic Microscopy	Alphanumeric
189	D9	OM Optical Microscopy	Alphanumeric
190	D10	FTIR Infrared Microscopy	Alphanumeric

Nr.	**GHG**	**Emission Parameters**	**Data Type**
191	GHG1	Coating Information	Alphanumeric
192	GHG2	VOC Content	Alphanumeric
193	GHG3	Solids Content	Alphanumeric
194	GHG4	HAPs Content	Alphanumeric
195	GHG5	Minimum Transfer Efficiency	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric

197	GHG7	Maximum uncontrolled emissions	Alphanumeric
198	GHG8	Maximum controlled emissions rate	Alphanumeric
199	GHG9	Pollution control efficiency	Alphanumeric
200	GHG10	N2O content	Numeric (unit)
201	GHG11	CO content	Numeric (unit)
202	GHG12	CO2 content	Numeric (unit)
203	GHG13	Additional Emissions	Alphanumeric
204	GHG14	Standard of Performance	Alphanumeric
205	GHG15	Regulations	Alphanumeric

Nr.	**OU**	**Operation and Use**	**Data Type**
206	OU1	Operating temperature range	Numeric (unit)
207	OU2	Minimum Operation Space	Alphanumeric
208	OU3	Expected life	Alphanumeric
209	OU4	Adjustment of service life	Alphanumeric
210	OU5	Service life duration	Numeric (unit)
211	OU6	Average failure time	Numeric (unit)
212	OU7	Security rating	Alphanumeric
213	OU8	Corrosion rate	Alphanumeric
216	OU11	Automatic operation	Alphanumeric
217	OU12	Operating limitations	Alphanumeric
218	OU13	Heat and humid climates	Alphanumeric
219	OU14	Temperature cycles	Alphanumeric
220	OU15	Humid and freezing nights	Alphanumeric
221	OU16	UV affectance (yellowing/discoloration,...)	Alphanumeric
222	OU17	High voltage operation (large connections/ installations)	Alphanumeric
223	OU18	Light Induced Degradation	Alphanumeric
224	OU19	Light and elevated temperature induced degradation	Alphanumeric

Nr.	**FP**	**Fire Protection**	**Data Type**
227	FP1	Fire Protection certificate	Alphanumeric
228	FP2	Flammability rating	Alphanumeric
229	FP3	Fragility rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric
231	FP5	Spread of flames	Alphanumeric
232	FP6	Compartmentation	Alphanumeric
233	FP7	Fire exit	Alphanumeric
234	FP8	Smoke stop	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	**PI**	**Packaging Information**	**Data Type**
237	PI1	Length of packaging unit	Alphanumeric
238	PI2	Width of packaging unit	Alphanumeric
239	PI3	Height of packaging unit	Alphanumeric
240	PI4	Weight of packaging unit	Alphanumeric
241	PI5	Contents of package	Alphanumeric
242	PI6	Special instructions	Alphanumeric
243	PI7	Container requirements	Alphanumeric
244	PI8	Wrapping requirements	Alphanumeric
245	PI9	Fragile nature	Alphanumeric

Nr.	**I**	**Installation**	**Data Type**
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
249	I4	Shelf life	Alphanumeric
250	I5	Nature of the risk	Alphanumeric
251	I6	Risk cause	Alphanumeric
252	I7	Risk consequence	Alphanumeric
253	I8	Risk rating	Alphanumeric
254	I9	Affects surroundings	Alphanumeric
255	I10	Preventive measures	Alphanumeric
256	I11	Installation space	Alphanumeric
257	I12	Installation date	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric

260	I15	Special equipment required	Alphanumeric
261	I16	Time of installation	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
264	M3	Date of repair	Alphanumeric
265	M4	Time to repair	Alphanumeric
266	M5	Priority type	Alphanumeric
267	M6	Warranty code	Numeric (-)
268	M7	Warranty contact	Alphanumeric
269	M8	Extended warranty	Alphanumeric
270	M9	Warranty content	Alphanumeric
271	M10	Warranty exclusions	Alphanumeric
272	M11	Warranty duration	Alphanumeric
273	M12	Warranty start date	Alphanumeric
274	M13	Warranty end date	Alphanumeric

Nr.	LCC	LCC - LCA	Data Type
275	LCC1	Raw material supply	Alphanumeric
276	LCC2	Recycled materials supply	Alphanumeric
277	LCC3	Raw materials road transportations	Alphanumeric
278	LCC4	Product manufacturing	Alphanumeric
279	LCC5	Packaging manufacturing	Alphanumeric
280	LCC6	Fuel type for transport	Alphanumeric
281	LCC7	Vehicle consumption	Alphanumeric
282	LCC8	Vehicle type	Alphanumeric
283	LCC9	Transport distance	Numeric (unit)
284	LCC10	Capacity utilisation	Alphanumeric
285	LCC11	Wastage of materials	Alphanumeric
286	LCC12	Output materials	Alphanumeric
287	LCC13	Use	Alphanumeric
288	LCC14	Maintenance	Alphanumeric
289	LCC15	Replacement	Alphanumeric
290	LCC16	Refurbishment	Alphanumeric
291	LCC17	Operational energy use	Numeric (unit)
292	LCC18	Operationale water use	Numeric (unit)
293	LCC19	Demolition	Alphanumeric
294	LCC20	Waste processing transport	Alphanumeric
295	LCC21	Recycling	Alphanumeric
296	LCC22	Disposal	Alphanumeric
297	LCC23	Collection process	Alphanumeric
298	LCC24	Recovery system	Alphanumeric
299	LCC25	Global Warming Potential (GWP)	Numeric (unit)
300	LCC26	Ozone Depletion (ODP)	Numeric (unit)
301	LCC27	Acidification potential (AP)	Numeric (unit)
302	LCC28	Eutrophication potential (EP)	Numeric (unit)
303	LCC29	Photochemical ozone creation (POPC)	Numeric (unit)
304	LCC30	Abiotic depletion potential for non-fossil resources (ADP-elements)	Numeric (unit)
305	LCC31	Abiotic depletion potential for fossil resources (ADP-fossil fuels)	Numeric (unit)
306	LCC32	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	Numeric (unit)
307	LCC33	Use of renewable primary energy used as raw materials	Numeric (unit)
308	LCC34	Total use of renewable primary energy resources	Numeric (unit)
309	LCC35	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	Numeric (unit)
310	LCC36	Use of non-renewable primary energy used as raw materials	Numeric (unit)
311	LCC37	Total use of non-renewable primary energy resources	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
313	LCC39	Use of secondary materials	Alphanumeric
314	LCC40	Use of renewable secondary fuels	Numeric (unit)
315	LCC41	Use of non-renewable secondary fuels	Numeric (unit)
316	LCC42	Use of net fresh water	Numeric (unit)
317	LCC43	Hazardous waste disposed	Numeric (unit)
318	LCC44	Non-hazardous waste disposed	Numeric (unit)

319	LCC45	Radioactive waste disposed	Numeric (unit)
320	LCC46	Components for re-use	Alphanumeric
321	LCC47	Materials for recycling	Alphanumeric
322	LCC48	Materials for energy recovery	Alphanumeric
323	LCC49	Exported energy	Numeric (unit)
324	LCC50	Resources depletion	Alphanumeric
325	LCC51	Inert waste	Alphanumeric
326	LCC52	Life cycle phase	Alphanumeric

SC	C	Scenario C	Certification Process
CS	2	Construction Segment 2	Cladding systems

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
10	ID10	Manufacturing code	Alphanumeric
11	ID11	Assembly site	Alphanumeric
12	ID12	Assembly code	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
26	DIM10	Mass per unit length	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)
28	DIM12	Mass density	Numeric (unit)
29	DIM13	Swing Angle	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
31	DIM15	Glass layer 1 thickness	Numeric (unit)
32	DIM16	Glass layer 2 thickness	Numeric (unit)
33	DIM17	Glass layer 3 thickness	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
36	DIM20	Is glass tempered	Boolean
37	DIM21	Is glass laminated	Boolean
40	DIM24	Glazing area	Numeric (-)
49	DIM33	Mullion shape	Alphanumeric
50	DIM34	Mullion dimensions	Alphanumeric
51	DIM35	Transom shape	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric
56	MF4	%mass of each materials used	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)
59	MP3	Sagging moment inertia	Numeric (unit)
60	MP4	Hogging moment inertia	Numeric (unit)
61	MP5	Young's modulus	Numeric (unit)
62	MP6	Bulk modulus	Numeric (unit)
63	MP7	Shear modulus	Numeric (unit)
64	MP8	Yield stress	Numeric (unit)
65	MP9	Shear strength	Numeric (unit)
66	MP10	Bending strength	Numeric (unit)
67	MP11	Tensile strength	Numeric (unit)
68	MP12	Poission's ratio	Numeric (-)
69	MP13	Spacer	Alphanumeric
70	MP14	Load bearing	Boolean

71	MP15	Mechanical load rating	Alphanumeric
72	MP16	Wind load resistance rating	Alphanumeric
73	MP17	Durability rating	Alphanumeric
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric
77	MP21	Bending resistance	Numeric (unit)
78	MP22	Bond properties from single lap shear test	Alphanumeric
79	MP23	Bond strength by pull-off	Numeric (unit)
80	MP24	Breaking strength	Numeric (unit)
81	MP25	modulus of elasticity	Numeric (unit)
82	MP26	Elongation LD/TD – longitudinal/transverse direction	Numeric (unit)
83	MP27	Maximum tensile force LD/TD – longitudinal/transverse direction	Numeric (unit)
84	MP28	Resistance to racking	Numeric (unit)
85	MP29	Resistance to static torsion	Numeric (unit)
86	MP30	Peel adhesion	Alphanumeric
87	MP31	Resistance to tearing LD/TD – longitudinal/transverse direction	Numeric (unit)
88	MP32	Shear resistance	Numeric (unit)
89	MP33	Strength of corners	Numeric (unit)
91	MP35	Vertical load capacity	Numeric (unit)
92	MP36	Horizontal load capacity	Numeric (unit)
93	MP37	Cross panel tensile strength	Numeric (unit)
95	MP39	Complex stiffness/ modulus at different temperatures	Alphanumeric
96	MP40	Dynamic stiffness	Numeric (unit)
97	MP41	Dynamic stiffness /modulus	Numeric (unit)
98	MP42	Dynamic stiffness/ modulus at different temperatures	Alphanumeric
99	MP43	Fatigue life /strength	Numeric (unit)
100	MP44	Fatigue life/strength at different temperatures	Numeric (unit)
101	MP45	Fatigue strength	Numeric (unit)
102	MP46	Flexural and tensile behaviour at different temperatures	Alphanumeric
103	MP47	Low temperature cracking	Alphanumeric
104	MP48	Modulus of elasticity at different temperatures	Alphanumeric
105	MP49	Shear strength at different temperatures	Alphanumeric
106	MP50	Shear test at different temperatures	Alphanumeric
107	MP51	Tensile and compression behaviour at different temperatures	Alphanumeric
108	MP52	Tensile behavior at different temperatures	Alphanumeric
109	MP53	Tensile behaviour and elongation at different temperatures	Alphanumeric
110	MP54	Tensile strength at different temperatures	Alphanumeric
111	MP55	Thermo-mechanical fatigue life	Alphanumeric
112	MP56	Wide-width tensile test at different temperatures	Alphanumeric
113	MP57	Dynamic test of façade system in out of plane direction	Boolean

Nr.	**EP**	**Energy Parameters**	**Data Type**
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
115	EP2	Frame thermal transmittance (Uf)	Numeric (unit)
116	EP3	Glass thermal transmittance (Ug)	Numeric (unit)
117	EP4	Window thermal transmittance (Uw)	Numeric (unit)
118	EP5	Linear heat transfer coefficient ΨG	Numeric (unit)
119	EP6	Thermal conductivity	Numeric (unit)
120	EP7	Visible Light Reflectance	Numeric (-)
121	EP8	Visual Light Transmittance (VLT)	Numeric (-)
122	EP9	Solar Heat Gain Coefficient (SHGC)	Numeric (-)
123	EP10	Solar Absorption	Numeric (-)
124	EP11	Solar Reflectance	Numeric (-)
125	EP12	Solar Transmittance	Numeric (-)
128	EP15	Air Leakage	Alphanumeric
130	EP17	Water Resistance	Alphanumeric
132	EP19	Hygrothermal rating	Alphanumeric
133	EP20	Condensation Resistance	Alphanumeric
134	EP21	Condensation Resistance Standard	Alphanumeric
139	EP26	Integration of other systems	Alphanumeric
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric
143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric

145	EP32	Integration of control logics	Alphanumeric
146	EP33	Communication protocols	Alphanumeric
147	EP34	Integration with Building Management Systems (BMS)	Alphanumeric
148	EP35	Absorptance	Numeric (-)
149	EP36	Roughness	Numeric (-)
153	EP40	Module efficiency	Numeric (-)
154	EP41	Solar cell type	Alphanumeric
155	EP42	Number of cells	Alphanumeric
156	EP43	Water vapor diffusion (Interstitial water vapor condensation risk and	Numeric (-)

Nr.	**AP**	**Acoustic Parameters**	**Data Type**
167	AP1	Acoustic rating	Alphanumeric
168	AP2	Sound absorption	Numeric (unit)
169	AP3	Dynamic stiffness	Numeric (unit)
170	AP4	Compressibility	Numeric (unit)
171	AP5	Average apparent dynamic rigidity	Numeric (unit)
172	AP6	Resonance frequency	Numeric (unit)
173	AP7	Weighted sound reduction index	Numeric (unit)
174	AP8	Max acceleration (m/s2), SWD scales – modal analysis	Numeric (unit)
175	AP9	Building protection against vibration in the context of connections/joints between component materials and supporting structures	Alphanumeric
178	AP12	Impact sound insulation	Numeric (unit)
179	AP13	Airborne sound insulation	Numeric (unit)

Nr.	**D**	**Durability**	**Data Type**
181	D1	Evaluation of influence fungi and molds on properties innovative materials	Alphanumeric
182	D2	Freeze-thaw	Alphanumeric
184	D4	UV radiation	Alphanumeric
187	D7	Temperature + humidity	Alphanumeric
188	D8	SEM Electronic Microscopy	Alphanumeric
189	D9	OM Optical Microscopy	Alphanumeric
190	D10	FTIR Infrared Microscopy	Alphanumeric

Nr.	**GHG**	**Emission Parameters**	**Data Type**
191	GHG1	Coating Information	Alphanumeric

Nr.	**OU**	**Operation and Use**	**Data Type**
206	OU1	Operating temperature range	Numeric (unit)
208	OU3	Expected life	Alphanumeric
210	OU5	Service life duration	Numeric (unit)
218	OU13	Heat and humid climates	Alphanumeric
219	OU14	Temperature cycles	Alphanumeric
220	OU15	Humid and freezing nights	Alphanumeric
221	OU16	UV affectance (yellowing/discoloration,...)	Alphanumeric
222	OU17	High voltage operation (large connections/ installations)	Alphanumeric
223	OU18	Light Induced Degradation	Alphanumeric
224	OU19	Light and elevated temperature induced degradation	Alphanumeric

Nr.	**FP**	**Fire Protection**	**Data Type**
227	FP1	Fire Protection certificate	Alphanumeric
228	FP2	Flammability rating	Alphanumeric
229	FP3	Fragility rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric
231	FP5	Spread of flames	Alphanumeric
232	FP6	Compartmentation	Alphanumeric
233	FP7	Fire exit	Alphanumeric
234	FP8	Smoke stop	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	**PI**	**Packaging Information**	**Data Type**
237	PI1	Length of packaging unit	Alphanumeric
238	PI2	Width of packaging unit	Alphanumeric
239	PI3	Height of packaging unit	Alphanumeric
242	PI6	Special instructions	Alphanumeric
245	PI9	Fragile nature	Alphanumeric

Nr.	I	Installation	Data Type
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
249	I4	Shelf life	Alphanumeric
255	I10	Preventive measures	Alphanumeric
256	I11	Installation space	Alphanumeric
257	I12	Installation date	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric
261	I16	Time of installation	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
264	M3	Date of repair	Alphanumeric
265	M4	Time to repair	Alphanumeric
266	M5	Priority type	Alphanumeric
267	M6	Warranty code	Numeric (-)
268	M7	Warranty contact	Alphanumeric
269	M8	Extended warranty	Alphanumeric
270	M9	Warranty content	Alphanumeric
271	M10	Warranty exclusions	Alphanumeric
272	M11	Warranty duration	Alphanumeric
273	M12	Warranty start date	Alphanumeric
274	M13	Warranty end date	Alphanumeric

Nr.	LCC	LCC - LCA	Data Type
275	LCC1	Raw material supply	Alphanumeric
276	LCC2	Recycled materials supply	Alphanumeric
277	LCC3	Raw materials road transportations	Alphanumeric
278	LCC4	Product manufacturing	Alphanumeric
279	LCC5	Packaging manufacturing	Alphanumeric
280	LCC6	Fuel type for transport	Alphanumeric
281	LCC7	Vehicle consumption	Alphanumeric
282	LCC8	Vehicle type	Alphanumeric
283	LCC9	Transport distance	Numeric (unit)
284	LCC10	Capacity utilisation	Alphanumeric
285	LCC11	Wastage of materials	Alphanumeric
286	LCC12	Output materials	Alphanumeric
287	LCC13	Use	Alphanumeric
288	LCC14	Maintenance	Alphanumeric
289	LCC15	Replacement	Alphanumeric
290	LCC16	Refurbishment	Alphanumeric
291	LCC17	Operational energy use	Numeric (unit)
292	LCC18	Operationale water use	Numeric (unit)
293	LCC19	Demolition	Alphanumeric
294	LCC20	Waste processing transport	Alphanumeric
295	LCC21	Recycling	Alphanumeric
296	LCC22	Disposal	Alphanumeric
297	LCC23	Collection process	Alphanumeric
298	LCC24	Recovery system	Alphanumeric
299	LCC25	Global Warming Potential (GWP)	Numeric (unit)
300	LCC26	Ozone Depletion (ODP)	Numeric (unit)
301	LCC27	Acidification potential (AP)	Numeric (unit)
302	LCC28	Eutrophication potential (EP)	Numeric (unit)
303	LCC29	Photochemical ozone creation (POPC)	Numeric (unit)
304	LCC30	Abiotic depletion potential for non-fossil resources (ADP-elements)	Numeric (unit)
305	LCC31	Abiotic depletion potential for fossil resources (ADP-fossil fuels)	Numeric (unit)
306	LCC32	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	Numeric (unit)
307	LCC33	Use of renewable primary energy used as raw materials	Numeric (unit)
308	LCC34	Total use of renewable primary energy resources	Numeric (unit)

309	LCC35	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	Numeric (unit)
310	LCC36	Use of non-renewable primary energy used as raw materials	Numeric (unit)
311	LCC37	Total use of non-renewable primary energy resources	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
313	LCC39	Use of secondary materials	Alphanumeric
314	LCC40	Use of renewable secondary fuels	Numeric (unit)
315	LCC41	Use of non-renewable secondary fuels	Numeric (unit)
316	LCC42	Use of net fresh water	Numeric (unit)
317	LCC43	Hazardous waste disposed	Numeric (unit)
318	LCC44	Non-hazardous waste disposed	Numeric (unit)
319	LCC45	Radioactive waste disposed	Numeric (unit)
320	LCC46	Components for re-use	Alphanumeric
321	LCC47	Materials for recycling	Alphanumeric
322	LCC48	Materials for energy recovery	Alphanumeric
323	LCC49	Exported energy	Numeric (unit)
324	LCC50	Resources depletion	Alphanumeric
325	LCC51	Inert waste	Alphanumeric
326	LCC52	Life cycle phase	Alphanumeric

SC	C	Scenario C	Certification Process
CS	3	Construction Segment 3	Coating and finishes

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
10	ID10	Manufacturing code	Alphanumeric
11	ID11	Assembly site	Alphanumeric
12	ID12	Assembly code	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
26	DIM10	Mass per unit length	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)
28	DIM12	Mass density	Numeric (unit)
29	DIM13	Swing Angle	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
31	DIM15	Glass layer 1 thickness	Numeric (unit)
32	DIM16	Glass layer 2 thickness	Numeric (unit)
33	DIM17	Glass layer 3 thickness	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
35	DIM19	Glass color	Alphanumeric
36	DIM20	Is glass tempered	Boolean
37	DIM21	Is glass laminated	Boolean
38	DIM22	Is glass coated	Boolean
39	DIM23	Is glass wired	Boolean
40	DIM24	Glazing area	Numeric (-)
41	DIM25	Handle	Boolean
42	DIM26	Sill	Boolean
43	DIM27	Sill Height	Numeric (unit)
44	DIM28	Type of construction of windows	Alphanumeric
45	DIM29	Opening layout	Alphanumeric
46	DIM30	Opening style	Alphanumeric
47	DIM31	Frame depth	Numeric (unit)
48	DIM32	Frame thickness	Numeric (unit)
49	DIM33	Mullion shape	Alphanumeric
50	DIM34	Mullion dimensions	Alphanumeric
51	DIM35	Transom shape	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric
56	MF4	%mass of each materials used	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)
59	MP3	Sagging moment inertia	Numeric (unit)

60	MP4	Hogging moment inertia	Numeric (unit)
61	MP5	Young's modulus	Numeric (unit)
62	MP6	Bulk modulus	Numeric (unit)
63	MP7	Shear modulus	Numeric (unit)
64	MP8	Yield stress	Numeric (unit)
65	MP9	Shear strength	Numeric (unit)
66	MP10	Bending strength	Numeric (unit)
67	MP11	Tensile strength	Numeric (unit)
68	MP12	Poission's ratio	Numeric (-)
69	MP13	Spacer	Alphanumeric
70	MP14	Load bearing	Boolean
71	MP15	Mechanical load rating	Alphanumeric
72	MP16	Wind load resistance rating	Alphanumeric
73	MP17	Durability rating	Alphanumeric
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric
77	MP21	Bending resistance	Numeric (unit)
78	MP22	Bond properties from single lap shear test	Alphanumeric
79	MP23	Bond strength by pull-off	Numeric (unit)
86	MP30	Peel adhesion	Alphanumeric
94	MP38	Adhesion by tensile bond strength at different temperatures	Alphanumeric

Nr.	**EP**	**Energy Parameters**	**Data Type**
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
115	EP2	Frame thermal transmittance (Uf)	Numeric (unit)
116	EP3	Glass thermal transmittance (Ug)	Numeric (unit)
117	EP4	Window thermal transmittance (Uw)	Numeric (unit)
118	EP5	Linear heat transfer coefficient ΨG	Numeric (unit)
119	EP6	Thermal conductivity	Numeric (unit)
120	EP7	Visible Light Reflectance	Numeric (-)
121	EP8	Visual Light Transmittance (VLT)	Numeric (-)
122	EP9	Solar Heat Gain Coefficient (SHGC)	Numeric (-)
123	EP10	Solar Absorption	Numeric (-)
124	EP11	Solar Reflectance	Numeric (-)
125	EP12	Solar Transmittance	Numeric (-)
126	EP13	Shading Coefficient	Numeric (-)
127	EP14	Energy Rating Scheme	Alphanumeric
128	EP15	Air Leakage	Alphanumeric
129	EP16	Air Leakage Standard	Alphanumeric
130	EP17	Water Resistance	Alphanumeric
131	EP18	Water Resistance Standard	Alphanumeric
132	EP19	Hygrothermal rating	Alphanumeric
133	EP20	Condensation Resistance	Alphanumeric
134	EP21	Condensation Resistance Standard	Alphanumeric
135	EP22	Shading elements	Boolean
136	EP23	Type of shading elements	Alphanumeric
137	EP24	Shading mechanically operated	Boolean
138	EP25	Shading elements control system	Alphanumeric
139	EP26	Integration of other systems	Alphanumeric
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric
143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric
145	EP32	Integration of control logics	Alphanumeric
146	EP33	Communication protocols	Alphanumeric
147	EP34	Integration with Building Management Systems (BMS)	Alphanumeric
148	EP35	Absorptance	Numeric (-)
149	EP36	Roughness	Numeric (-)
150	EP37	Maximum power	Numeric (unit)
151	EP38	Open-circuit voltage	Numeric (unit)
152	EP39	Short-circuit current	Numeric (unit)
153	EP40	Module efficiency	Numeric (-)
154	EP41	Solar cell type	Alphanumeric
155	EP42	Number of cells	Alphanumeric
156	EP43	Water vapor diffusion (Interstitial water vapor condensation risk and	Numeric (-)

Nr.	AP	Acoustic Parameters	Data Type
167	AP1	Acoustic rating	Alphanumeric
168	AP2	Sound absorption	Numeric (unit)
169	AP3	Dynamic stiffness	Numeric (unit)
170	AP4	Compressibility	Numeric (unit)
171	AP5	Average apparent dynamic rigidity	Numeric (unit)
172	AP6	Resonance frequency	Numeric (unit)
173	AP7	Weighted sound reduction index	Numeric (unit)
174	AP8	Max acceleration (m/s2), SWD scales – modal analysis	Numeric (unit)
175	AP9	Building protection against vibration in the context of connections/joints between component materials and supporting structures	Alphanumeric
178	AP12	Impact sound insulation	Numeric (unit)
179	AP13	Airborne sound insulation	Numeric (unit)

Nr.	D	Durability	Data Type
181	D1	Evaluation of influence fungi and molds on properties innovative materials	Alphanumeric
182	D2	Freeze-thaw	Alphanumeric
184	D4	UV radiation	Alphanumeric
187	D7	Temperature + humidity	Alphanumeric
188	D8	SEM Electronic Microscopy	Alphanumeric
189	D9	OM Optical Microscopy	Alphanumeric
190	D10	FTIR Infrared Microscopy	Alphanumeric

Nr.	GHG	Emission Parameters	Data Type
191	GHG1	Coating Information	Alphanumeric
192	GHG2	VOC Content	Alphanumeric
193	GHG3	Solids Content	Alphanumeric
194	GHG4	HAPs Content	Alphanumeric
195	GHG5	Minimum Transfer Efficiency	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric
197	GHG7	Maximum uncontrolled emissions	Alphanumeric
198	GHG8	Maximum controlled emissions rate	Alphanumeric
199	GHG9	Pollution control efficiency	Alphanumeric
200	GHG10	N2O content	Numeric (unit)
201	GHG11	CO content	Numeric (unit)
202	GHG12	CO2 content	Numeric (unit)
203	GHG13	Additional Emissions	Alphanumeric
204	GHG14	Standard of Performance	Alphanumeric
205	GHG15	Regulations	Alphanumeric

Nr.	OU	Operation and Use	Data Type
206	OU1	Operating temperature range	Numeric (unit)
207	OU2	Minimum Operation Space	Alphanumeric
208	OU3	Expected life	Alphanumeric
209	OU4	Adjustment of service life	Alphanumeric
210	OU5	Service life duration	Numeric (unit)
211	OU6	Average failure time	Numeric (unit)
212	OU7	Security rating	Alphanumeric
213	OU8	Corrosion rate	Alphanumeric
216	OU11	Automatic operation	Alphanumeric
217	OU12	Operating limitations	Alphanumeric
218	OU13	Heat and humid climates	Alphanumeric
219	OU14	Temperature cycles	Alphanumeric
220	OU15	Humid and freezing nights	Alphanumeric
221	OU16	UV affectance (yellowing/discoloration,...)	Alphanumeric
222	OU17	High voltage operation (large connections/ installations)	Alphanumeric
223	OU18	Light Induced Degradation	Alphanumeric
224	OU19	Light and elevated temperature induced degradation	Alphanumeric

Nr.	FP	Fire Protection	Data Type
227	FP1	Fire Protection certificate	Alphanumeric
228	FP2	Flammability rating	Alphanumeric
229	FP3	Fragility rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric
231	FP5	Spread of flames	Alphanumeric
232	FP6	Compartmentation	Alphanumeric

233	FP7	Fire exit	Alphanumeric
234	FP8	Smoke stop	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	PI	Packaging Information	Data Type
237	PI1	Length of packaging unit	Alphanumeric
238	PI2	Width of packaging unit	Alphanumeric
239	PI3	Height of packaging unit	Alphanumeric
240	PI4	Weight of packaging unit	Alphanumeric
241	PI5	Contents of package	Alphanumeric
242	PI6	Special instructions	Alphanumeric
243	PI7	Container requirements	Alphanumeric
244	PI8	Wrapping requirements	Alphanumeric
245	PI9	Fragile nature	Alphanumeric

Nr.	I	Installation	Data Type
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
249	I4	Shelf life	Alphanumeric
250	I5	Nature of the risk	Alphanumeric
251	I6	Risk cause	Alphanumeric
252	I7	Risk consequence	Alphanumeric
253	I8	Risk rating	Alphanumeric
254	I9	Affects surroundings	Alphanumeric
255	I10	Preventive measures	Alphanumeric
256	I11	Installation space	Alphanumeric
257	I12	Installation date	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric
261	I16	Time of installation	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
264	M3	Date of repair	Alphanumeric
265	M4	Time to repair	Alphanumeric
266	M5	Priority type	Alphanumeric
267	M6	Warranty code	Numeric (-)
268	M7	Warranty contact	Alphanumeric
269	M8	Extended warranty	Alphanumeric
270	M9	Warranty content	Alphanumeric
271	M10	Warranty exclusions	Alphanumeric
272	M11	Warranty duration	Alphanumeric
273	M12	Warranty start date	Alphanumeric
274	M13	Warranty end date	Alphanumeric

Nr.	LCC	LCC - LCA	Data Type
275	LCC1	Raw material supply	Alphanumeric
276	LCC2	Recycled materials supply	Alphanumeric
277	LCC3	Raw materials road transportations	Alphanumeric
278	LCC4	Product manufacturing	Alphanumeric
279	LCC5	Packaging manufacturing	Alphanumeric
280	LCC6	Fuel type for transport	Alphanumeric
281	LCC7	Vehicle consumption	Alphanumeric
282	LCC8	Vehicle type	Alphanumeric
283	LCC9	Transport distance	Numeric (unit)
284	LCC10	Capacity utilisation	Alphanumeric
285	LCC11	Wastage of materials	Alphanumeric
286	LCC12	Output materials	Alphanumeric
287	LCC13	Use	Alphanumeric
288	LCC14	Maintenance	Alphanumeric
289	LCC15	Replacement	Alphanumeric
290	LCC16	Refurbishment	Alphanumeric
291	LCC17	Operational energy use	Numeric (unit)
292	LCC18	Operationale water use	Numeric (unit)

293	LCC19	Demolition	Alphanumeric
294	LCC20	Waste processing transport	Alphanumeric
295	LCC21	Recycling	Alphanumeric
296	LCC22	Disposal	Alphanumeric
297	LCC23	Collection process	Alphanumeric
298	LCC24	Recovery system	Alphanumeric
299	LCC25	Global Warming Potential (GWP)	Numeric (unit)
300	LCC26	Ozone Depletion (ODP)	Numeric (unit)
301	LCC27	Acidification potential (AP)	Numeric (unit)
302	LCC28	Eutrophication potential (EP)	Numeric (unit)
303	LCC29	Photochemical ozone creation (POPC)	Numeric (unit)
304	LCC30	Abiotic depletion potential for non-fossil resources (ADP-elements)	Numeric (unit)
305	LCC31	Abiotic depletion potential for fossil resources (ADP-fossil fuels)	Numeric (unit)
306	LCC32	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	Numeric (unit)
307	LCC33	Use of renewable primary energy used as raw materials	Numeric (unit)
308	LCC34	Total use of renewable primary energy resources	Numeric (unit)
309	LCC35	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	Numeric (unit)
310	LCC36	Use of non-renewable primary energy used as raw materials	Numeric (unit)
311	LCC37	Total use of non-renewable primary energy resources	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
313	LCC39	Use of secondary materials	Alphanumeric
314	LCC40	Use of renewable secondary fuels	Numeric (unit)
315	LCC41	Use of non-renewable secondary fuels	Numeric (unit)
316	LCC42	Use of net fresh water	Numeric (unit)
317	LCC43	Hazardous waste disposed	Numeric (unit)
318	LCC44	Non-hazardous waste disposed	Numeric (unit)
319	LCC45	Radioactive waste disposed	Numeric (unit)
320	LCC46	Components for re-use	Alphanumeric
321	LCC47	Materials for recycling	Alphanumeric
322	LCC48	Materials for energy recovery	Alphanumeric
323	LCC49	Exported energy	Numeric (unit)
324	LCC50	Resources depletion	Alphanumeric
325	LCC51	Inert waste	Alphanumeric
326	LCC52	Life cycle phase	Alphanumeric

SC	C	Scenario C	Certification Process
CS	4	Construction Segment 4	Glazing and frames

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
10	ID10	Manufacturing code	Alphanumeric
11	ID11	Assembly site	Alphanumeric
12	ID12	Assembly code	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
26	DIM10	Mass per unit length	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)
28	DIM12	Mass density	Numeric (unit)
29	DIM13	Swing Angle	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
31	DIM15	Glass layer 1 thickness	Numeric (unit)
32	DIM16	Glass layer 2 thickness	Numeric (unit)
33	DIM17	Glass layer 3 thickness	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
35	DIM19	Glass color	Alphanumeric
36	DIM20	Is glass tempered	Boolean
37	DIM21	Is glass laminated	Boolean
38	DIM22	Is glass coated	Boolean
39	DIM23	Is glass wired	Boolean
40	DIM24	Glazing area	Numeric (-)
41	DIM25	Handle	Boolean
42	DIM26	Sill	Boolean
43	DIM27	Sill Height	Numeric (unit)
44	DIM28	Type of construction of windows	Alphanumeric
45	DIM29	Opening layout	Alphanumeric
46	DIM30	Opening style	Alphanumeric
47	DIM31	Frame depth	Numeric (unit)
48	DIM32	Frame thickness	Numeric (unit)
49	DIM33	Mullion shape	Alphanumeric
50	DIM34	Mullion dimensions	Alphanumeric
51	DIM35	Transom shape	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric
56	MF4	%mass of each materials used	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)
59	MP3	Sagging moment inertia	Numeric (unit)

60	MP4	Hogging moment inertia	Numeric (unit)
61	MP5	Young's modulus	Numeric (unit)
62	MP6	Bulk modulus	Numeric (unit)
63	MP7	Shear modulus	Numeric (unit)
64	MP8	Yield stress	Numeric (unit)
65	MP9	Shear strength	Numeric (unit)
66	MP10	Bending strength	Numeric (unit)
67	MP11	Tensile strength	Numeric (unit)
68	MP12	Poission's ratio	Numeric (-)
69	MP13	Spacer	Alphanumeric
70	MP14	Load bearing	Boolean
71	MP15	Mechanical load rating	Alphanumeric
72	MP16	Wind load resistance rating	Alphanumeric
73	MP17	Durability rating	Alphanumeric
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric
77	MP21	Bending resistance	Numeric (unit)
80	MP24	Breaking strength	Numeric (unit)
81	MP25	modulus of elasticity	Numeric (unit)
82	MP26	Elongation LD/TD – longitudinal/transverse direction	Numeric (unit)
83	MP27	Maximum tensile force LD/TD – longitudinal/transverse direction	Numeric (unit)
84	MP28	Resistance to racking	Numeric (unit)
85	MP29	Resistance to static torsion	Numeric (unit)
86	MP30	Peel adhesion	Alphanumeric
87	MP31	Resistance to tearing LD/TD – longitudinal/transverse direction	Numeric (unit)
88	MP32	Shear resistance	Numeric (unit)
89	MP33	Strength of corners	Numeric (unit)
91	MP35	Vertical load capacity	Numeric (unit)
92	MP36	Horizontal load capacity	Numeric (unit)
93	MP37	Cross panel tensile strength	Numeric (unit)
95	MP39	Complex stiffness/ modulus at different temperatures	Alphanumeric
96	MP40	Dynamic stiffness	Numeric (unit)
97	MP41	Dynamic stiffness /modulus	Numeric (unit)
98	MP42	Dynamic stiffness/ modulus at different temperatures	Alphanumeric
99	MP43	Fatigue life /strength	Numeric (unit)
100	MP44	Fatigue life/strength at different temperatures	Numeric (unit)
101	MP45	Fatigue strength	Numeric (unit)
102	MP46	Flexural and tensile behaviour at different temperatures	Alphanumeric
103	MP47	Low temperature cracking	Alphanumeric
104	MP48	Modulus of elasticity at different temperatures	Alphanumeric
105	MP49	Shear strength at different temperatures	Alphanumeric
106	MP50	Shear test at different temperatures	Alphanumeric
107	MP51	Tensile and compression behaviour at different temperatures	Alphanumeric
108	MP52	Tensile behavior at different temperatures	Alphanumeric
109	MP53	Tensile behaviour and elongation at different temperatures	Alphanumeric
110	MP54	Tensile strength at different temperatures	Alphanumeric
111	MP55	Thermo-mechanical fatigue life	Alphanumeric
112	MP56	Wide-width tensile test at different temperatures	Alphanumeric

Nr.	**EP**	**Energy Parameters**	**Data Type**
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
115	EP2	Frame thermal transmittance (Uf)	Numeric (unit)
116	EP3	Glass thermal transmittance (Ug)	Numeric (unit)
117	EP4	Window thermal transmittance (Uw)	Numeric (unit)
118	EP5	Linear heat transfer coefficient ΨG	Numeric (unit)
119	EP6	Thermal conductivity	Numeric (unit)
120	EP7	Visible Light Reflectance	Numeric (-)
121	EP8	Visual Light Transmittance (VLT)	Numeric (-)
122	EP9	Solar Heat Gain Coefficient (SHGC)	Numeric (-)
123	EP10	Solar Absorption	Numeric (-)
124	EP11	Solar Reflectance	Numeric (-)
125	EP12	Solar Transmittance	Numeric (-)
126	EP13	Shading Coefficient	Numeric (-)
127	EP14	Energy Rating Scheme	Alphanumeric
128	EP15	Air Leakage	Alphanumeric

129	EP16	Air Leakage Standard	Alphanumeric
130	EP17	Water Resistance	Alphanumeric
131	EP18	Water Resistance Standard	Alphanumeric
132	EP19	Hygrothermal rating	Alphanumeric
133	EP20	Condensation Resistance	Alphanumeric
134	EP21	Condensation Resistance Standard	Alphanumeric
135	EP22	Shading elements	Boolean
136	EP23	Type of shading elements	Alphanumeric
137	EP24	Shading mechanically operated	Boolean
138	EP25	Shading elements control system	Alphanumeric
139	EP26	Integration of other systems	Alphanumeric
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric
143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric
145	EP32	Integration of control logics	Alphanumeric
146	EP33	Communication protocols	Alphanumeric
147	EP34	Integration with Building Management Systems (BMS)	Alphanumeric
148	EP35	Absorptance	Numeric (-)
149	EP36	Roughness	Numeric (-)
150	EP37	Maximum power	Numeric (unit)
151	EP38	Open-circuit voltage	Numeric (unit)
152	EP39	Short-circuit current	Numeric (unit)
153	EP40	Module efficiency	Numeric (-)
154	EP41	Solar cell type	Alphanumeric
155	EP42	Number of cells	Alphanumeric
156	EP43	Water vapor diffusion (Interstitial water vapor condensation risk and	Numeric (-)

Nr.	**AP**	**Acoustic Parameters**	**Data Type**
167	AP1	Acoustic rating	Alphanumeric
168	AP2	Sound absorption	Numeric (unit)
169	AP3	Dynamic stiffness	Numeric (unit)
170	AP4	Compressibility	Numeric (unit)
171	AP5	Average apparent dynamic rigidity	Numeric (unit)
172	AP6	Resonance frequency	Numeric (unit)
173	AP7	Weighted sound reduction index	Numeric (unit)
174	AP8	Max acceleration (m/s2), SWD scales – modal analysis	Numeric (unit)
175	AP9	Building protection against vibration in the context of connections/joints between component materials and supporting structures	Alphanumeric
178	AP12	Impact sound insulation	Numeric (unit)
179	AP13	Airborne sound insulation	Numeric (unit)

Nr.	**D**	**Durability**	**Data Type**
181	D1	Evaluation of influence fungi and molds on properties innovative materials	Alphanumeric
182	D2	Freeze-thaw	Alphanumeric
184	D4	UV radiation	Alphanumeric
187	D7	Temperature + humidity	Alphanumeric
188	D8	SEM Electronic Microscopy	Alphanumeric
189	D9	OM Optical Microscopy	Alphanumeric
190	D10	FTIR Infrared Microscopy	Alphanumeric

Nr.	**GHG**	**Emission Parameters**	**Data Type**
191	GHG1	Coating Information	Alphanumeric
192	GHG2	VOC Content	Alphanumeric
193	GHG3	Solids Content	Alphanumeric
194	GHG4	HAPs Content	Alphanumeric
195	GHG5	Minimum Transfer Efficiency	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric
197	GHG7	Maximum uncontrolled emissions	Alphanumeric
198	GHG8	Maximum controlled emissions rate	Alphanumeric
199	GHG9	Pollution control efficiency	Alphanumeric
200	GHG10	N2O content	Numeric (unit)
201	GHG11	CO content	Numeric (unit)
202	GHG12	CO2 content	Numeric (unit)
203	GHG13	Additional Emissions	Alphanumeric

204	GHG14	Standard of Performance	Alphanumeric
205	GHG15	Regulations	Alphanumeric

Nr.	OU	Operation and Use	Data Type
206	OU1	Operating temperature range	Numeric (unit)
207	OU2	Minimum Operation Space	Alphanumeric
208	OU3	Expected life	Alphanumeric
209	OU4	Adjustment of service life	Alphanumeric
210	OU5	Service life duration	Numeric (unit)
211	OU6	Average failure time	Numeric (unit)
212	OU7	Security rating	Alphanumeric
213	OU8	Corrosion rate	Alphanumeric
216	OU11	Automatic operation	Alphanumeric
217	OU12	Operating limitations	Alphanumeric
218	OU13	Heat and humid climates	Alphanumeric
219	OU14	Temperature cycles	Alphanumeric
220	OU15	Humid and freezing nights	Alphanumeric
221	OU16	UV affectance (yellowing/discoloration,...)	Alphanumeric
222	OU17	High voltage operation (large connections/ installations)	Alphanumeric
223	OU18	Light Induced Degradation	Alphanumeric
224	OU19	Light and elevated temperature induced degradation	Alphanumeric

Nr.	FP	Fire Protection	Data Type
227	FP1	Fire Protection certificate	Alphanumeric
228	FP2	Flammability rating	Alphanumeric
229	FP3	Fragility rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric
231	FP5	Spread of flames	Alphanumeric
232	FP6	Compartmentation	Alphanumeric
233	FP7	Fire exit	Alphanumeric
234	FP8	Smoke stop	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	PI	Packaging Information	Data Type
237	PI1	Length of packaging unit	Alphanumeric
238	PI2	Width of packaging unit	Alphanumeric
239	PI3	Height of packaging unit	Alphanumeric
240	PI4	Weight of packaging unit	Alphanumeric
241	PI5	Contents of package	Alphanumeric
242	PI6	Special instructions	Alphanumeric
243	PI7	Container requirements	Alphanumeric
244	PI8	Wrapping requirements	Alphanumeric
245	PI9	Fragile nature	Alphanumeric

Nr.	I	Installation	Data Type
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
249	I4	Shelf life	Alphanumeric
250	I5	Nature of the risk	Alphanumeric
251	I6	Risk cause	Alphanumeric
252	I7	Risk consequence	Alphanumeric
253	I8	Risk rating	Alphanumeric
254	I9	Affects surroundings	Alphanumeric
255	I10	Preventive measures	Alphanumeric
256	I11	Installation space	Alphanumeric
257	I12	Installation date	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric
261	I16	Time of installation	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
264	M3	Date of repair	Alphanumeric
265	M4	Time to repair	Alphanumeric

266	M5	Priority type	Alphanumeric
267	M6	Warranty code	Numeric (-)
268	M7	Warranty contact	Alphanumeric
269	M8	Extended warranty	Alphanumeric
270	M9	Warranty content	Alphanumeric
271	M10	Warranty exclusions	Alphanumeric
272	M11	Warranty duration	Alphanumeric
273	M12	Warranty start date	Alphanumeric
274	M13	Warranty end date	Alphanumeric

Nr.	LCC	LCC - LCA	Data Type
275	LCC1	Raw material supply	Alphanumeric
276	LCC2	Recycled materials supply	Alphanumeric
277	LCC3	Raw materials road transportations	Alphanumeric
278	LCC4	Product manufacturing	Alphanumeric
279	LCC5	Packaging manufacturing	Alphanumeric
280	LCC6	Fuel type for transport	Alphanumeric
281	LCC7	Vehicle consumption	Alphanumeric
282	LCC8	Vehicle type	Alphanumeric
283	LCC9	Transport distance	Numeric (unit)
284	LCC10	Capacity utilisation	Alphanumeric
285	LCC11	Wastage of materials	Alphanumeric
286	LCC12	Output materials	Alphanumeric
287	LCC13	Use	Alphanumeric
288	LCC14	Maintenance	Alphanumeric
289	LCC15	Replacement	Alphanumeric
290	LCC16	Refurbishment	Alphanumeric
291	LCC17	Operational energy use	Numeric (unit)
292	LCC18	Operationale water use	Numeric (unit)
293	LCC19	Demolition	Alphanumeric
294	LCC20	Waste processing transport	Alphanumeric
295	LCC21	Recycling	Alphanumeric
296	LCC22	Disposal	Alphanumeric
297	LCC23	Collection process	Alphanumeric
298	LCC24	Recovery system	Alphanumeric
299	LCC25	Global Warming Potential (GWP)	Numeric (unit)
300	LCC26	Ozone Depletion (ODP)	Numeric (unit)
301	LCC27	Acidification potential (AP)	Numeric (unit)
302	LCC28	Eutrophication potential (EP)	Numeric (unit)
303	LCC29	Photochemical ozone creation (POPC)	Numeric (unit)
304	LCC30	Abiotic depletion potential for non-fossil resources (ADP-elements)	Numeric (unit)
305	LCC31	Abiotic depletion potential for fossil resources (ADP-fossil fuels)	Numeric (unit)
306	LCC32	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	Numeric (unit)
307	LCC33	Use of renewable primary energy used as raw materials	Numeric (unit)
308	LCC34	Total use of renewable primary energy resources	Numeric (unit)
309	LCC35	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	Numeric (unit)
310	LCC36	Use of non-renewable primary energy used as raw materials	Numeric (unit)
311	LCC37	Total use of non-renewable primary energy resources	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
313	LCC39	Use of secondary materials	Alphanumeric
314	LCC40	Use of renewable secondary fuels	Numeric (unit)
315	LCC41	Use of non-renewable secondary fuels	Numeric (unit)
316	LCC42	Use of net fresh water	Numeric (unit)
317	LCC43	Hazardous waste disposed	Numeric (unit)
318	LCC44	Non-hazardous waste disposed	Numeric (unit)
319	LCC45	Radioactive waste disposed	Numeric (unit)
320	LCC46	Components for re-use	Alphanumeric
321	LCC47	Materials for recycling	Alphanumeric
322	LCC48	Materials for energy recovery	Alphanumeric
323	LCC49	Exported energy	Numeric (unit)
324	LCC50	Resources depletion	Alphanumeric
325	LCC51	Inert waste	Alphanumeric
326	LCC52	Life cycle phase	Alphanumeric

SC	C	Scenario C	Certification Process
CS	5	Construction Segment 5	Membranes

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
10	ID10	Manufacturing code	Alphanumeric
11	ID11	Assembly site	Alphanumeric
12	ID12	Assembly code	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
26	DIM10	Mass per unit length	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)
28	DIM12	Mass density	Numeric (unit)
29	DIM13	Swing Angle	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
31	DIM15	Glass layer 1 thickness	Numeric (unit)
32	DIM16	Glass layer 2 thickness	Numeric (unit)
33	DIM17	Glass layer 3 thickness	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
36	DIM20	Is glass tempered	Boolean
37	DIM21	Is glass laminated	Boolean
40	DIM24	Glazing area	Numeric (-)

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric
56	MF4	%mass of each materials used	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)
59	MP3	Sagging moment inertia	Numeric (unit)
60	MP4	Hogging moment inertia	Numeric (unit)
61	MP5	Young's modulus	Numeric (unit)
62	MP6	Bulk modulus	Numeric (unit)
63	MP7	Shear modulus	Numeric (unit)
64	MP8	Yield stress	Numeric (unit)
65	MP9	Shear strength	Numeric (unit)
66	MP10	Bending strength	Numeric (unit)
67	MP11	Tensile strength	Numeric (unit)
68	MP12	Poission's ratio	Numeric (-)
69	MP13	Spacer	Alphanumeric
70	MP14	Load bearing	Boolean
71	MP15	Mechanical load rating	Alphanumeric
72	MP16	Wind load resistance rating	Alphanumeric
73	MP17	Durability rating	Alphanumeric
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric

76	MP20	Type of joint	Alphanumeric
77	MP21	Bending resistance	Numeric (unit)
78	MP22	Bond properties from single lap shear test	Alphanumeric
79	MP23	Bond strength by pull-off	Numeric (unit)
81	MP25	modulus of elasticity	Numeric (unit)
82	MP26	Elongation LD/TD – longitudinal/transverse direction	Numeric (unit)
83	MP27	Maximum tensile force LD/TD – longitudinal/transverse direction	Numeric (unit)
86	MP30	Peel adhesion	Alphanumeric
87	MP31	Resistance to tearing LD/TD – longitudinal/transverse direction	Numeric (unit)
90	MP34	Tension resistance of the connection	Numeric (unit)
94	MP38	Adhesion by tensile bond strength at different temperatures	Alphanumeric

Nr.	**EP**	**Energy Parameters**	**Data Type**
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
115	EP2	Frame thermal transmittance (Uf)	Numeric (unit)
116	EP3	Glass thermal transmittance (Ug)	Numeric (unit)
117	EP4	Window thermal transmittance (Uw)	Numeric (unit)
118	EP5	Linear heat transfer coefficient ΨG	Numeric (unit)
119	EP6	Thermal conductivity	Numeric (unit)
121	EP8	Visual Light Transmittance (VLT)	Numeric (-)
122	EP9	Solar Heat Gain Coefficient (SHGC)	Numeric (-)
123	EP10	Solar Absorption	Numeric (-)
124	EP11	Solar Reflectance	Numeric (-)
125	EP12	Solar Transmittance	Numeric (-)
127	EP14	Energy Rating Scheme	Alphanumeric
128	EP15	Air Leakage	Alphanumeric
129	EP16	Air Leakage Standard	Alphanumeric
130	EP17	Water Resistance	Alphanumeric
131	EP18	Water Resistance Standard	Alphanumeric
132	EP19	Hygrothermal rating	Alphanumeric
133	EP20	Condensation Resistance	Alphanumeric
134	EP21	Condensation Resistance Standard	Alphanumeric
148	EP35	Absorptance	Numeric (-)
149	EP36	Roughness	Numeric (-)
153	EP40	Module efficiency	Numeric (-)
156	EP43	Water vapor diffusion (Interstitial water vapor condensation risk and	Numeric (-)

Nr.	**AP**	**Acoustic Parameters**	**Data Type**
167	AP1	Acoustic rating	Alphanumeric
168	AP2	Sound absorption	Numeric (unit)
169	AP3	Dynamic stiffness	Numeric (unit)
170	AP4	Compressibility	Numeric (unit)
171	AP5	Average apparent dynamic rigidity	Numeric (unit)
172	AP6	Resonance frequency	Numeric (unit)
173	AP7	Weighted sound reduction index	Numeric (unit)
174	AP8	Max acceleration (m/s2), SWD scales – modal analysis	Numeric (unit)
175	AP9	Building protection against vibration in the context of connections/joints between component materials and supporting structures	Alphanumeric
178	AP12	Impact sound insulation	Numeric (unit)
179	AP13	Airborne sound insulation	Numeric (unit)

Nr.	**D**	**Durability**	**Data Type**
181	D1	Evaluation of influence fungi and molds on properties innovative materials	Alphanumeric
182	D2	Freeze-thaw	Alphanumeric

Nr.	**GHG**	**Emission Parameters**	**Data Type**
191	GHG1	Coating Information	Alphanumeric
192	GHG2	VOC Content	Alphanumeric
193	GHG3	Solids Content	Alphanumeric
194	GHG4	HAPs Content	Alphanumeric
195	GHG5	Minimum Transfer Efficiency	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric
197	GHG7	Maximum uncontrolled emissions	Alphanumeric
198	GHG8	Maximum controlled emissions rate	Alphanumeric

199	GHG9	Pollution control efficiency	Alphanumeric
200	GHG10	N2O content	Numeric (unit)
201	GHG11	CO content	Numeric (unit)
202	GHG12	CO2 content	Numeric (unit)
203	GHG13	Additional Emissions	Alphanumeric
204	GHG14	Standard of Performance	Alphanumeric
205	GHG15	Regulations	Alphanumeric

Nr.	OU	Operation and Use	Data Type
206	OU1	Operating temperature range	Numeric (unit)
208	OU3	Expected life	Alphanumeric
210	OU5	Service life duration	Numeric (unit)
214	OU9	Slippery prevention	Alphanumeric
222	OU17	High voltage operation (large connections/ installations)	Alphanumeric

Nr.	FP	Fire Protection	Data Type
227	FP1	Fire Protection certificate	Alphanumeric
228	FP2	Flammability rating	Alphanumeric
229	FP3	Fragility rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric
231	FP5	Spread of flames	Alphanumeric
232	FP6	Compartmentation	Alphanumeric
233	FP7	Fire exit	Alphanumeric
234	FP8	Smoke stop	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	PI	Packaging Information	Data Type
237	PI1	Length of packaging unit	Alphanumeric
238	PI2	Width of packaging unit	Alphanumeric
239	PI3	Height of packaging unit	Alphanumeric
240	PI4	Weight of packaging unit	Alphanumeric
241	PI5	Contents of package	Alphanumeric
242	PI6	Special instructions	Alphanumeric

Nr.	I	Installation	Data Type
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
255	I10	Preventive measures	Alphanumeric
256	I11	Installation space	Alphanumeric
257	I12	Installation date	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric
261	I16	Time of installation	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
264	M3	Date of repair	Alphanumeric
265	M4	Time to repair	Alphanumeric
266	M5	Priority type	Alphanumeric
267	M6	Warranty code	Numeric (-)
268	M7	Warranty contact	Alphanumeric
269	M8	Extended warranty	Alphanumeric
270	M9	Warranty content	Alphanumeric
271	M10	Warranty exclusions	Alphanumeric
272	M11	Warranty duration	Alphanumeric
273	M12	Warranty start date	Alphanumeric
274	M13	Warranty end date	Alphanumeric

Nr.	LCC	LCC - LCA	Data Type
275	LCC1	Raw material supply	Alphanumeric
276	LCC2	Recycled materials supply	Alphanumeric
277	LCC3	Raw materials road transportations	Alphanumeric
278	LCC4	Product manufacturing	Alphanumeric
279	LCC5	Packaging manufacturing	Alphanumeric

280	LCC6	Fuel type for transport	Alphanumeric
281	LCC7	Vehicle consumption	Alphanumeric
282	LCC8	Vehicle type	Alphanumeric
283	LCC9	Transport distance	Numeric (unit)
284	LCC10	Capacity utilisation	Alphanumeric
285	LCC11	Wastage of materials	Alphanumeric
286	LCC12	Output materials	Alphanumeric
287	LCC13	Use	Alphanumeric
288	LCC14	Maintenance	Alphanumeric
289	LCC15	Replacement	Alphanumeric
290	LCC16	Refurbishment	Alphanumeric
291	LCC17	Operational energy use	Numeric (unit)
292	LCC18	Operationale water use	Numeric (unit)
293	LCC19	Demolition	Alphanumeric
294	LCC20	Waste processing transport	Alphanumeric
295	LCC21	Recycling	Alphanumeric
296	LCC22	Disposal	Alphanumeric
297	LCC23	Collection process	Alphanumeric
298	LCC24	Recovery system	Alphanumeric
299	LCC25	Global Warming Potential (GWP)	Numeric (unit)
300	LCC26	Ozone Depletion (ODP)	Numeric (unit)
301	LCC27	Acidification potential (AP)	Numeric (unit)
302	LCC28	Eutrophication potential (EP)	Numeric (unit)
303	LCC29	Photochemical ozone creation (POPC)	Numeric (unit)
304	LCC30	Abiotic depletion potential for non-fossil resources (ADP-elements)	Numeric (unit)
305	LCC31	Abiotic depletion potential for fossil resources (ADP-fossil fuels)	Numeric (unit)
306	LCC32	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	Numeric (unit)
307	LCC33	Use of renewable primary energy used as raw materials	Numeric (unit)
308	LCC34	Total use of renewable primary energy resources	Numeric (unit)
309	LCC35	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	Numeric (unit)
310	LCC36	Use of non-renewable primary energy used as raw materials	Numeric (unit)
311	LCC37	Total use of non-renewable primary energy resources	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
313	LCC39	Use of secondary materials	Alphanumeric
314	LCC40	Use of renewable secondary fuels	Numeric (unit)
315	LCC41	Use of non-renewable secondary fuels	Numeric (unit)
316	LCC42	Use of net fresh water	Numeric (unit)
317	LCC43	Hazardous waste disposed	Numeric (unit)
318	LCC44	Non-hazardous waste disposed	Numeric (unit)
319	LCC45	Radioactive waste disposed	Numeric (unit)
320	LCC46	Components for re-use	Alphanumeric
321	LCC47	Materials for recycling	Alphanumeric
322	LCC48	Materials for energy recovery	Alphanumeric
323	LCC49	Exported energy	Numeric (unit)
324	LCC50	Resources depletion	Alphanumeric
325	LCC51	Inert waste	Alphanumeric
326	LCC52	Life cycle phase	Alphanumeric

SC	C	Scenario C	Certification Process
CS	6	Construction Segment 6	Joints and connectors

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
10	ID10	Manufacturing code	Alphanumeric
11	ID11	Assembly site	Alphanumeric
12	ID12	Assembly code	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
26	DIM10	Mass per unit length	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)
28	DIM12	Mass density	Numeric (unit)
29	DIM13	Swing Angle	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
31	DIM15	Glass layer 1 thickness	Numeric (unit)
32	DIM16	Glass layer 2 thickness	Numeric (unit)
33	DIM17	Glass layer 3 thickness	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
36	DIM20	Is glass tempered	Boolean
37	DIM21	Is glass laminated	Boolean
40	DIM24	Glazing area	Numeric (-)
49	DIM33	Mullion shape	Alphanumeric
50	DIM34	Mullion dimensions	Alphanumeric
51	DIM35	Transom shape	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric
56	MF4	%mass of each materials used	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)
59	MP3	Sagging moment inertia	Numeric (unit)
60	MP4	Hogging moment inertia	Numeric (unit)
61	MP5	Young's modulus	Numeric (unit)
62	MP6	Bulk modulus	Numeric (unit)
63	MP7	Shear modulus	Numeric (unit)
64	MP8	Yield stress	Numeric (unit)
65	MP9	Shear strength	Numeric (unit)
66	MP10	Bending strength	Numeric (unit)
67	MP11	Tensile strength	Numeric (unit)
68	MP12	Poission's ratio	Numeric (-)
69	MP13	Spacer	Alphanumeric
70	MP14	Load bearing	Boolean
71	MP15	Mechanical load rating	Alphanumeric

72	MP16	Wind load resistance rating	Alphanumeric
73	MP17	Durability rating	Alphanumeric
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric
77	MP21	Bending resistance	Numeric (unit)
80	MP24	Breaking strength	Numeric (unit)
81	MP25	modulus of elasticity	Numeric (unit)
82	MP26	Elongation LD/TD – longitudinal/transverse direction	Numeric (unit)
83	MP27	Maximum tensile force LD/TD – longitudinal/transverse direction	Numeric (unit)
84	MP28	Resistance to racking	Numeric (unit)
85	MP29	Resistance to static torsion	Numeric (unit)
87	MP31	Resistance to tearing LD/TD – longitudinal/transverse direction	Numeric (unit)
88	MP32	Shear resistance	Numeric (unit)
89	MP33	Strength of corners	Numeric (unit)
90	MP34	Tension resistance of the connection	Numeric (unit)
91	MP35	Vertical load capacity	Numeric (unit)
92	MP36	Horizontal load capacity	Numeric (unit)
93	MP37	Cross panel tensile strength	Numeric (unit)

Nr.	**EP**	**Energy Parameters**	**Data Type**
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
115	EP2	Frame thermal transmittance (Uf)	Numeric (unit)
116	EP3	Glass thermal transmittance (Ug)	Numeric (unit)
117	EP4	Window thermal transmittance (Uw)	Numeric (unit)
118	EP5	Linear heat transfer coefficient ΨG	Numeric (unit)
119	EP6	Thermal conductivity	Numeric (unit)
121	EP8	Visual Light Transmittance (VLT)	Numeric (-)
122	EP9	Solar Heat Gain Coefficient (SHGC)	Numeric (-)
123	EP10	Solar Absorption	Numeric (-)
124	EP11	Solar Reflectance	Numeric (-)
125	EP12	Solar Transmittance	Numeric (-)
128	EP15	Air Leakage	Alphanumeric
148	EP35	Absorptance	Numeric (-)
149	EP36	Roughness	Numeric (-)
153	EP40	Module efficiency	Numeric (-)

Nr.	**AP**	**Acoustic Parameters**	**Data Type**
167	AP1	Acoustic rating	Alphanumeric
168	AP2	Sound absorption	Numeric (unit)
169	AP3	Dynamic stiffness	Numeric (unit)
170	AP4	Compressibility	Numeric (unit)
171	AP5	Average apparent dynamic rigidity	Numeric (unit)
172	AP6	Resonance frequency	Numeric (unit)
173	AP7	Weighted sound reduction index	Numeric (unit)
174	AP8	Max acceleration (m/s2), SWD scales – modal analysis	Numeric (unit)
175	AP9	Building protection against vibration in the context of connections/joints between component materials and supporting structures	Alphanumeric
178	AP12	Impact sound insulation	Numeric (unit)
179	AP13	Airborne sound insulation	Numeric (unit)

Nr.	**D**	**Durability**	**Data Type**
184	D4	UV radiation	Alphanumeric
187	D7	Temperature + humidity	Alphanumeric
188	D8	SEM Electronic Microscopy	Alphanumeric
189	D9	OM Optical Microscopy	Alphanumeric
190	D10	FTIR Infrared Microscopy	Alphanumeric

Nr.	**GHG**	**Emission Parameters**	**Data Type**
191	GHG1	Coating Information	Alphanumeric

Nr.	**OU**	**Operation and Use**	**Data Type**
206	OU1	Operating temperature range	Numeric (unit)
208	OU3	Expected life	Alphanumeric
210	OU5	Service life duration	Numeric (unit)

218	OU13	Heat and humid climates	Alphanumeric
219	OU14	Temperature cycles	Alphanumeric
220	OU15	Humid and freezing nights	Alphanumeric
221	OU16	UV affectance (yellowing/discoloration,...)	Alphanumeric
222	OU17	High voltage operation (large connections/ installations)	Alphanumeric
223	OU18	Light Induced Degradation	Alphanumeric
224	OU19	Light and elevated temperature induced degradation	Alphanumeric

Nr.	FP	Fire Protection	Data Type
227	FP1	Fire Protection certificate	Alphanumeric
228	FP2	Flammability rating	Alphanumeric
229	FP3	Fragility rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric
231	FP5	Spread of flames	Alphanumeric
232	FP6	Compartmentation	Alphanumeric
233	FP7	Fire exit	Alphanumeric
234	FP8	Smoke stop	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	I	Installation	Data Type
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
255	I10	Preventive measures	Alphanumeric
256	I11	Installation space	Alphanumeric
257	I12	Installation date	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric
261	I16	Time of installation	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
264	M3	Date of repair	Alphanumeric
265	M4	Time to repair	Alphanumeric
266	M5	Priority type	Alphanumeric
267	M6	Warranty code	Numeric (-)
268	M7	Warranty contact	Alphanumeric
269	M8	Extended warranty	Alphanumeric
270	M9	Warranty content	Alphanumeric
271	M10	Warranty exclusions	Alphanumeric
272	M11	Warranty duration	Alphanumeric
273	M12	Warranty start date	Alphanumeric
274	M13	Warranty end date	Alphanumeric

Nr.	LCC	LCC - LCA	Data Type
275	LCC1	Raw material supply	Alphanumeric
276	LCC2	Recycled materials supply	Alphanumeric
277	LCC3	Raw materials road transportations	Alphanumeric
278	LCC4	Product manufacturing	Alphanumeric
279	LCC5	Packaging manufacturing	Alphanumeric
280	LCC6	Fuel type for transport	Alphanumeric
281	LCC7	Vehicle consumption	Alphanumeric
282	LCC8	Vehicle type	Alphanumeric
283	LCC9	Transport distance	Numeric (unit)
284	LCC10	Capacity utilisation	Alphanumeric
285	LCC11	Wastage of materials	Alphanumeric
286	LCC12	Output materials	Alphanumeric
287	LCC13	Use	Alphanumeric
288	LCC14	Maintenance	Alphanumeric
289	LCC15	Replacement	Alphanumeric
290	LCC16	Refurbishment	Alphanumeric
291	LCC17	Operational energy use	Numeric (unit)
292	LCC18	Operationale water use	Numeric (unit)
293	LCC19	Demolition	Alphanumeric
294	LCC20	Waste processing transport	Alphanumeric

295	LCC21	Recycling	Alphanumeric
296	LCC22	Disposal	Alphanumeric
297	LCC23	Collection process	Alphanumeric
298	LCC24	Recovery system	Alphanumeric
299	LCC25	Global Warming Potential (GWP)	Numeric (unit)
300	LCC26	Ozone Depletion (ODP)	Numeric (unit)
301	LCC27	Acidification potential (AP)	Numeric (unit)
302	LCC28	Eutrophication potential (EP)	Numeric (unit)
303	LCC29	Photochemical ozone creation (POPC)	Numeric (unit)
304	LCC30	Abiotic depletion potential for non-fossil resources (ADP-elements)	Numeric (unit)
305	LCC31	Abiotic depletion potential for fossil resources (ADP-fossil fuels)	Numeric (unit)
306	LCC32	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	Numeric (unit)
307	LCC33	Use of renewable primary energy used as raw materials	Numeric (unit)
308	LCC34	Total use of renewable primary energy resources	Numeric (unit)
309	LCC35	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	Numeric (unit)
310	LCC36	Use of non-renewable primary energy used as raw materials	Numeric (unit)
311	LCC37	Total use of non-renewable primary energy resources	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
313	LCC39	Use of secondary materials	Alphanumeric
314	LCC40	Use of renewable secondary fuels	Numeric (unit)
315	LCC41	Use of non-renewable secondary fuels	Numeric (unit)
316	LCC42	Use of net fresh water	Numeric (unit)
317	LCC43	Hazardous waste disposed	Numeric (unit)
318	LCC44	Non-hazardous waste disposed	Numeric (unit)
319	LCC45	Radioactive waste disposed	Numeric (unit)
320	LCC46	Components for re-use	Alphanumeric
321	LCC47	Materials for recycling	Alphanumeric
322	LCC48	Materials for energy recovery	Alphanumeric
323	LCC49	Exported energy	Numeric (unit)
324	LCC50	Resources depletion	Alphanumeric
325	LCC51	Inert waste	Alphanumeric
326	LCC52	Life cycle phase	Alphanumeric

SC	C	Scenario C	Certification Process
CS	7	Construction Segment 7	Insulation

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
10	ID10	Manufacturing code	Alphanumeric
11	ID11	Assembly site	Alphanumeric
12	ID12	Assembly code	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
26	DIM10	Mass per unit length	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)
28	DIM12	Mass density	Numeric (unit)
29	DIM13	Swing Angle	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
31	DIM15	Glass layer 1 thickness	Numeric (unit)
32	DIM16	Glass layer 2 thickness	Numeric (unit)
33	DIM17	Glass layer 3 thickness	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
35	DIM19	Glass color	Alphanumeric
36	DIM20	Is glass tempered	Boolean
37	DIM21	Is glass laminated	Boolean
38	DIM22	Is glass coated	Boolean
40	DIM24	Glazing area	Numeric (-)
41	DIM25	Handle	Boolean
42	DIM26	Sill	Boolean
43	DIM27	Sill Height	Numeric (unit)
44	DIM28	Type of construction of windows	Alphanumeric
45	DIM29	Opening layout	Alphanumeric
46	DIM30	Opening style	Alphanumeric
47	DIM31	Frame depth	Numeric (unit)
48	DIM32	Frame thickness	Numeric (unit)
49	DIM33	Mullion shape	Alphanumeric
50	DIM34	Mullion dimensions	Alphanumeric
51	DIM35	Transom shape	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric
56	MF4	%mass of each materials used	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)
59	MP3	Sagging moment inertia	Numeric (unit)
60	MP4	Hogging moment inertia	Numeric (unit)

61	MP5	Young's modulus	Numeric (unit)
62	MP6	Bulk modulus	Numeric (unit)
63	MP7	Shear modulus	Numeric (unit)
64	MP8	Yield stress	Numeric (unit)
65	MP9	Shear strength	Numeric (unit)
66	MP10	Bending strength	Numeric (unit)
67	MP11	Tensile strength	Numeric (unit)
68	MP12	Poission's ratio	Numeric (-)
69	MP13	Spacer	Alphanumeric
70	MP14	Load bearing	Boolean
71	MP15	Mechanical load rating	Alphanumeric
72	MP16	Wind load resistance rating	Alphanumeric
73	MP17	Durability rating	Alphanumeric
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric
77	MP21	Bending resistance	Numeric (unit)

Nr.	**EP**	**Energy Parameters**	**Data Type**
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
115	EP2	Frame thermal transmittance (Uf)	Numeric (unit)
116	EP3	Glass thermal transmittance (Ug)	Numeric (unit)
117	EP4	Window thermal transmittance (Uw)	Numeric (unit)
118	EP5	Linear heat transfer coefficient ΨG	Numeric (unit)
119	EP6	Thermal conductivity	Numeric (unit)
120	EP7	Visible Light Reflectance	Numeric (-)
121	EP8	Visual Light Transmittance (VLT)	Numeric (-)
122	EP9	Solar Heat Gain Coefficient (SHGC)	Numeric (-)
123	EP10	Solar Absorption	Numeric (-)
124	EP11	Solar Reflectance	Numeric (-)
125	EP12	Solar Transmittance	Numeric (-)
126	EP13	Shading Coefficient	Numeric (-)
127	EP14	Energy Rating Scheme	Alphanumeric
128	EP15	Air Leakage	Alphanumeric
129	EP16	Air Leakage Standard	Alphanumeric
130	EP17	Water Resistance	Alphanumeric
131	EP18	Water Resistance Standard	Alphanumeric
132	EP19	Hygrothermal rating	Alphanumeric
133	EP20	Condensation Resistance	Alphanumeric
134	EP21	Condensation Resistance Standard	Alphanumeric
135	EP22	Shading elements	Boolean
136	EP23	Type of shading elements	Alphanumeric
137	EP24	Shading mechanically operated	Boolean
138	EP25	Shading elements control system	Alphanumeric
139	EP26	Integration of other systems	Alphanumeric
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric
143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric
145	EP32	Integration of control logics	Alphanumeric
146	EP33	Communication protocols	Alphanumeric
147	EP34	Integration with Building Management Systems (BMS)	Alphanumeric
148	EP35	Absorptance	Numeric (-)
149	EP36	Roughness	Numeric (-)
150	EP37	Maximum power	Numeric (unit)
151	EP38	Open-circuit voltage	Numeric (unit)
152	EP39	Short-circuit current	Numeric (unit)
153	EP40	Module efficiency	Numeric (-)
154	EP41	Solar cell type	Alphanumeric
155	EP42	Number of cells	Alphanumeric
156	EP43	Water vapor diffusion (Interstitial water vapor condensation risk and	Numeric (-)

Nr.	**AP**	**Acoustic Parameters**	**Data Type**
167	AP1	Acoustic rating	Alphanumeric
168	AP2	Sound absorption	Numeric (unit)
169	AP3	Dynamic stiffness	Numeric (unit)
170	AP4	Compressibility	Numeric (unit)

171	AP5	Average apparent dynamic rigidity	Numeric (unit)
172	AP6	Resonance frequency	Numeric (unit)
173	AP7	Weighted sound reduction index	Numeric (unit)
174	AP8	Max acceleration (m/s2), SWD scales – modal analysis	Numeric (unit)
175	AP9	Building protection against vibration in the context of connections/joints between component materials and supporting structures	Alphanumeric
178	AP12	Impact sound insulation	Numeric (unit)
179	AP13	Airborne sound insulation	Numeric (unit)

Nr.	D	Durability	Data Type
181	D1	Evaluation of influence fungi and molds on properties innovative materials	Alphanumeric

Nr.	GHG	Emission Parameters	Data Type
191	GHG1	Coating Information	Alphanumeric
192	GHG2	VOC Content	Alphanumeric
193	GHG3	Solids Content	Alphanumeric
194	GHG4	HAPs Content	Alphanumeric
195	GHG5	Minimum Transfer Efficiency	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric
197	GHG7	Maximum uncontrolled emissions	Alphanumeric
198	GHG8	Maximum controlled emissions rate	Alphanumeric
199	GHG9	Pollution control efficiency	Alphanumeric
200	GHG10	N2O content	Numeric (unit)
201	GHG11	CO content	Numeric (unit)
202	GHG12	CO2 content	Numeric (unit)
203	GHG13	Additional Emissions	Alphanumeric
204	GHG14	Standard of Performance	Alphanumeric
205	GHG15	Regulations	Alphanumeric

Nr.	OU	Operation and Use	Data Type
206	OU1	Operating temperature range	Numeric (unit)
207	OU2	Minimum Operation Space	Alphanumeric
208	OU3	Expected life	Alphanumeric
209	OU4	Adjustment of service life	Alphanumeric
210	OU5	Service life duration	Numeric (unit)
216	OU11	Automatic operation	Alphanumeric
217	OU12	Operating limitations	Alphanumeric
222	OU17	High voltage operation (large connections/ installations)	Alphanumeric

Nr.	FP	Fire Protection	Data Type
227	FP1	Fire Protection certificate	Alphanumeric
228	FP2	Flammability rating	Alphanumeric
229	FP3	Fragility rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric
231	FP5	Spread of flames	Alphanumeric
232	FP6	Compartmentation	Alphanumeric
233	FP7	Fire exit	Alphanumeric
234	FP8	Smoke stop	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	PI	Packaging Information	Data Type
237	PI1	Length of packaging unit	Alphanumeric
238	PI2	Width of packaging unit	Alphanumeric
239	PI3	Height of packaging unit	Alphanumeric
240	PI4	Weight of packaging unit	Alphanumeric
241	PI5	Contents of package	Alphanumeric
242	PI6	Special instructions	Alphanumeric

Nr.	I	Installation	Data Type
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
255	I10	Preventive measures	Alphanumeric
256	I11	Installation space	Alphanumeric
257	I12	Installation date	Alphanumeric

258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric
261	I16	Time of installation	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
264	M3	Date of repair	Alphanumeric
265	M4	Time to repair	Alphanumeric
266	M5	Priority type	Alphanumeric
267	M6	Warranty code	Numeric (-)
268	M7	Warranty contact	Alphanumeric
269	M8	Extended warranty	Alphanumeric
270	M9	Warranty content	Alphanumeric
271	M10	Warranty exclusions	Alphanumeric
272	M11	Warranty duration	Alphanumeric
273	M12	Warranty start date	Alphanumeric
274	M13	Warranty end date	Alphanumeric

Nr.	LCC	LCC - LCA	Data Type
275	LCC1	Raw material supply	Alphanumeric
276	LCC2	Recycled materials supply	Alphanumeric
277	LCC3	Raw materials road transportations	Alphanumeric
278	LCC4	Product manufacturing	Alphanumeric
279	LCC5	Packaging manufacturing	Alphanumeric
280	LCC6	Fuel type for transport	Alphanumeric
281	LCC7	Vehicle consumption	Alphanumeric
282	LCC8	Vehicle type	Alphanumeric
283	LCC9	Transport distance	Numeric (unit)
284	LCC10	Capacity utilisation	Alphanumeric
285	LCC11	Wastage of materials	Alphanumeric
286	LCC12	Output materials	Alphanumeric
287	LCC13	Use	Alphanumeric
288	LCC14	Maintenance	Alphanumeric
289	LCC15	Replacement	Alphanumeric
290	LCC16	Refurbishment	Alphanumeric
291	LCC17	Operational energy use	Numeric (unit)
292	LCC18	Operationale water use	Numeric (unit)
293	LCC19	Demolition	Alphanumeric
294	LCC20	Waste processing transport	Alphanumeric
295	LCC21	Recycling	Alphanumeric
296	LCC22	Disposal	Alphanumeric
297	LCC23	Collection process	Alphanumeric
298	LCC24	Recovery system	Alphanumeric
299	LCC25	Global Warming Potential (GWP)	Numeric (unit)
300	LCC26	Ozone Depletion (ODP)	Numeric (unit)
301	LCC27	Acidification potential (AP)	Numeric (unit)
302	LCC28	Eutrophication potential (EP)	Numeric (unit)
303	LCC29	Photochemical ozone creation (POPC)	Numeric (unit)
304	LCC30	Abiotic depletion potential for non-fossil resources (ADP-elements)	Numeric (unit)
305	LCC31	Abiotic depletion potential for fossil resources (ADP-fossil fuels)	Numeric (unit)
306	LCC32	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	Numeric (unit)
307	LCC33	Use of renewable primary energy used as raw materials	Numeric (unit)
308	LCC34	Total use of renewable primary energy resources	Numeric (unit)
309	LCC35	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	Numeric (unit)
310	LCC36	Use of non-renewable primary energy used as raw materials	Numeric (unit)
311	LCC37	Total use of non-renewable primary energy resources	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
313	LCC39	Use of secondary materials	Alphanumeric
314	LCC40	Use of renewable secondary fuels	Numeric (unit)
315	LCC41	Use of non-renewable secondary fuels	Numeric (unit)
316	LCC42	Use of net fresh water	Numeric (unit)
317	LCC43	Hazardous waste disposed	Numeric (unit)

318	LCC44	Non-hazardous waste disposed	Numeric (unit)
319	LCC45	Radioactive waste disposed	Numeric (unit)
320	LCC46	Components for re-use	Alphanumeric
321	LCC47	Materials for recycling	Alphanumeric
322	LCC48	Materials for energy recovery	Alphanumeric
323	LCC49	Exported energy	Numeric (unit)
324	LCC50	Resources depletion	Alphanumeric
325	LCC51	Inert waste	Alphanumeric
326	LCC52	Life cycle phase	Alphanumeric

SC	C	Scenario C	Certification Process
CS	8	Construction Segment 8	Green roofs and green façades

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
10	ID10	Manufacturing code	Alphanumeric
11	ID11	Assembly site	Alphanumeric
12	ID12	Assembly code	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
26	DIM10	Mass per unit length	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)
28	DIM12	Mass density	Numeric (unit)
29	DIM13	Swing Angle	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
31	DIM15	Glass layer 1 thickness	Numeric (unit)
32	DIM16	Glass layer 2 thickness	Numeric (unit)
33	DIM17	Glass layer 3 thickness	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
35	DIM19	Glass color	Alphanumeric
36	DIM20	Is glass tempered	Boolean
37	DIM21	Is glass laminated	Boolean
38	DIM22	Is glass coated	Boolean
40	DIM24	Glazing area	Numeric (-)
41	DIM25	Handle	Boolean
42	DIM26	Sill	Boolean
43	DIM27	Sill Height	Numeric (unit)
44	DIM28	Type of construction of windows	Alphanumeric
45	DIM29	Opening layout	Alphanumeric
46	DIM30	Opening style	Alphanumeric
47	DIM31	Frame depth	Numeric (unit)
48	DIM32	Frame thickness	Numeric (unit)
49	DIM33	Mullion shape	Alphanumeric
50	DIM34	Mullion dimensions	Alphanumeric
51	DIM35	Transom shape	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric
56	MF4	%mass of each materials used	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)
59	MP3	Sagging moment inertia	Numeric (unit)

60	MP4	Hogging moment inertia	Numeric (unit)
61	MP5	Young's modulus	Numeric (unit)
62	MP6	Bulk modulus	Numeric (unit)
63	MP7	Shear modulus	Numeric (unit)
64	MP8	Yield stress	Numeric (unit)
65	MP9	Shear strength	Numeric (unit)
66	MP10	Bending strength	Numeric (unit)
67	MP11	Tensile strength	Numeric (unit)
68	MP12	Poission's ratio	Numeric (-)
69	MP13	Spacer	Alphanumeric
70	MP14	Load bearing	Boolean
71	MP15	Mechanical load rating	Alphanumeric
72	MP16	Wind load resistance rating	Alphanumeric
73	MP17	Durability rating	Alphanumeric
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric
77	MP21	Bending resistance	Numeric (unit)
81	MP25	modulus of elasticity	Numeric (unit)
82	MP26	Elongation LD/TD – longitudinal/transverse direction	Numeric (unit)
83	MP27	Maximum tensile force LD/TD – longitudinal/transverse direction	Numeric (unit)
84	MP28	Resistance to racking	Numeric (unit)
85	MP29	Resistance to static torsion	Numeric (unit)
87	MP31	Resistance to tearing LD/TD – longitudinal/transverse direction	Numeric (unit)
88	MP32	Shear resistance	Numeric (unit)
89	MP33	Strength of corners	Numeric (unit)
91	MP35	Vertical load capacity	Numeric (unit)
92	MP36	Horizontal load capacity	Numeric (unit)
93	MP37	Cross panel tensile strength	Numeric (unit)

Nr.	**EP**	**Energy Parameters**	**Data Type**
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
115	EP2	Frame thermal transmittance (Uf)	Numeric (unit)
116	EP3	Glass thermal transmittance (Ug)	Numeric (unit)
117	EP4	Window thermal transmittance (Uw)	Numeric (unit)
118	EP5	Linear heat transfer coefficient ΨG	Numeric (unit)
119	EP6	Thermal conductivity	Numeric (unit)
120	EP7	Visible Light Reflectance	Numeric (-)
121	EP8	Visual Light Transmittance (VLT)	Numeric (-)
122	EP9	Solar Heat Gain Coefficient (SHGC)	Numeric (-)
123	EP10	Solar Absorption	Numeric (-)
124	EP11	Solar Reflectance	Numeric (-)
125	EP12	Solar Transmittance	Numeric (-)
126	EP13	Shading Coefficient	Numeric (-)
127	EP14	Energy Rating Scheme	Alphanumeric
128	EP15	Air Leakage	Alphanumeric
129	EP16	Air Leakage Standard	Alphanumeric
130	EP17	Water Resistance	Alphanumeric
131	EP18	Water Resistance Standard	Alphanumeric
132	EP19	Hygrothermal rating	Alphanumeric
133	EP20	Condensation Resistance	Alphanumeric
134	EP21	Condensation Resistance Standard	Alphanumeric
135	EP22	Shading elements	Boolean
136	EP23	Type of shading elements	Alphanumeric
137	EP24	Shading mechanically operated	Boolean
138	EP25	Shading elements control system	Alphanumeric
139	EP26	Integration of other systems	Alphanumeric
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric
143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric
145	EP32	Integration of control logics	Alphanumeric
146	EP33	Communication protocols	Alphanumeric
147	EP34	Integration with Building Management Systems (BMS)	Alphanumeric

148	EP35	Absorptance	Numeric (-)
149	EP36	Roughness	Numeric (-)
150	EP37	Maximum power	Numeric (unit)
151	EP38	Open-circuit voltage	Numeric (unit)
152	EP39	Short-circuit current	Numeric (unit)
153	EP40	Module efficiency	Numeric (-)
154	EP41	Solar cell type	Alphanumeric
155	EP42	Number of cells	Alphanumeric
156	EP43	Water vapor diffusion (Interstitial water vapor condensation risk and	Numeric (-)

Nr.	AP	Acoustic Parameters	Data Type
167	AP1	Acoustic rating	Alphanumeric
168	AP2	Sound absorption	Numeric (unit)
169	AP3	Dynamic stiffness	Numeric (unit)
170	AP4	Compressibility	Numeric (unit)
171	AP5	Average apparent dynamic rigidity	Numeric (unit)
172	AP6	Resonance frequency	Numeric (unit)
173	AP7	Weighted sound reduction index	Numeric (unit)
174	AP8	Max acceleration (m/s2), SWD scales – modal analysis	Numeric (unit)
175	AP9	Building protection against vibration in the context of connections/joints between component materials and supporting structures	Alphanumeric
178	AP12	Impact sound insulation	Numeric (unit)
179	AP13	Airborne sound insulation	Numeric (unit)

Nr.	D	Durability	Data Type
181	D1	Evaluation of influence fungi and molds on properties innovative materials	Alphanumeric
182	D2	Freeze-thaw	Alphanumeric
184	D4	UV radiation	Alphanumeric
187	D7	Temperature + humidity	Alphanumeric
188	D8	SEM Electronic Microscopy	Alphanumeric
189	D9	OM Optical Microscopy	Alphanumeric
190	D10	FTIR Infrared Microscopy	Alphanumeric

Nr.	GHG	Emission Parameters	Data Type
191	GHG1	Coating Information	Alphanumeric
192	GHG2	VOC Content	Alphanumeric
193	GHG3	Solids Content	Alphanumeric
194	GHG4	HAPs Content	Alphanumeric
195	GHG5	Minimum Transfer Efficiency	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric
197	GHG7	Maximum uncontrolled emissions	Alphanumeric
198	GHG8	Maximum controlled emissions rate	Alphanumeric
199	GHG9	Pollution control efficiency	Alphanumeric
200	GHG10	N2O content	Numeric (unit)
201	GHG11	CO content	Numeric (unit)
202	GHG12	CO2 content	Numeric (unit)
203	GHG13	Additional Emissions	Alphanumeric
204	GHG14	Standard of Performance	Alphanumeric
205	GHG15	Regulations	Alphanumeric

Nr.	OU	Operation and Use	Data Type
206	OU1	Operating temperature range	Numeric (unit)
207	OU2	Minimum Operation Space	Alphanumeric
208	OU3	Expected life	Alphanumeric
209	OU4	Adjustment of service life	Alphanumeric
210	OU5	Service life duration	Numeric (unit)
214	OU9	Slippery prevention	Alphanumeric
216	OU11	Automatic operation	Alphanumeric
217	OU12	Operating limitations	Alphanumeric
218	OU13	Heat and humid climates	Alphanumeric
219	OU14	Temperature cycles	Alphanumeric
220	OU15	Humid and freezing nights	Alphanumeric
221	OU16	UV affectance (yellowing/discoloration,...)	Alphanumeric
222	OU17	High voltage operation (large connections/ installations)	Alphanumeric
223	OU18	Light Induced Degradation	Alphanumeric

224	OU19	Light and elevated temperature induced degradation	Alphanumeric

Nr.	FP	Fire Protection	Data Type
227	FP1	Fire Protection certificate	Alphanumeric
228	FP2	Flammability rating	Alphanumeric
229	FP3	Fragility rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric
231	FP5	Spread of flames	Alphanumeric
232	FP6	Compartmentation	Alphanumeric
233	FP7	Fire exit	Alphanumeric
234	FP8	Smoke stop	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	I	Installation	Data Type
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
255	I10	Preventive measures	Alphanumeric
256	I11	Installation space	Alphanumeric
257	I12	Installation date	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric
261	I16	Time of installation	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
264	M3	Date of repair	Alphanumeric
265	M4	Time to repair	Alphanumeric
266	M5	Priority type	Alphanumeric
267	M6	Warranty code	Numeric (-)
268	M7	Warranty contact	Alphanumeric
269	M8	Extended warranty	Alphanumeric
270	M9	Warranty content	Alphanumeric
271	M10	Warranty exclusions	Alphanumeric
272	M11	Warranty duration	Alphanumeric
273	M12	Warranty start date	Alphanumeric
274	M13	Warranty end date	Alphanumeric

Nr.	LCC	LCC - LCA	Data Type
275	LCC1	Raw material supply	Alphanumeric
276	LCC2	Recycled materials supply	Alphanumeric
277	LCC3	Raw materials road transportations	Alphanumeric
278	LCC4	Product manufacturing	Alphanumeric
279	LCC5	Packaging manufacturing	Alphanumeric
280	LCC6	Fuel type for transport	Alphanumeric
281	LCC7	Vehicle consumption	Alphanumeric
282	LCC8	Vehicle type	Alphanumeric
283	LCC9	Transport distance	Numeric (unit)
284	LCC10	Capacity utilisation	Alphanumeric
285	LCC11	Wastage of materials	Alphanumeric
286	LCC12	Output materials	Alphanumeric
287	LCC13	Use	Alphanumeric
288	LCC14	Maintenance	Alphanumeric
289	LCC15	Replacement	Alphanumeric
290	LCC16	Refurbishment	Alphanumeric
291	LCC17	Operational energy use	Numeric (unit)
292	LCC18	Operationale water use	Numeric (unit)
293	LCC19	Demolition	Alphanumeric
294	LCC20	Waste processing transport	Alphanumeric
295	LCC21	Recycling	Alphanumeric
296	LCC22	Disposal	Alphanumeric
297	LCC23	Collection process	Alphanumeric
298	LCC24	Recovery system	Alphanumeric
299	LCC25	Global Warming Potential (GWP)	Numeric (unit)

300	LCC26	Ozone Depletion (ODP)	Numeric (unit)
301	LCC27	Acidification potential (AP)	Numeric (unit)
302	LCC28	Eutrophication potential (EP)	Numeric (unit)
303	LCC29	Photochemical ozone creation (POPC)	Numeric (unit)
304	LCC30	Abiotic depletion potential for non-fossil resources (ADP-elements)	Numeric (unit)
305	LCC31	Abiotic depletion potential for fossil resources (ADP-fossil fuels)	Numeric (unit)
306	LCC32	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	Numeric (unit)
307	LCC33	Use of renewable primary energy used as raw materials	Numeric (unit)
308	LCC34	Total use of renewable primary energy resources	Numeric (unit)
309	LCC35	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	Numeric (unit)
310	LCC36	Use of non-renewable primary energy used as raw materials	Numeric (unit)
311	LCC37	Total use of non-renewable primary energy resources	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
313	LCC39	Use of secondary materials	Alphanumeric
314	LCC40	Use of renewable secondary fuels	Numeric (unit)
315	LCC41	Use of non-renewable secondary fuels	Numeric (unit)
316	LCC42	Use of net fresh water	Numeric (unit)
317	LCC43	Hazardous waste disposed	Numeric (unit)
318	LCC44	Non-hazardous waste disposed	Numeric (unit)
319	LCC45	Radioactive waste disposed	Numeric (unit)
320	LCC46	Components for re-use	Alphanumeric
321	LCC47	Materials for recycling	Alphanumeric
322	LCC48	Materials for energy recovery	Alphanumeric
323	LCC49	Exported energy	Numeric (unit)
324	LCC50	Resources depletion	Alphanumeric
325	LCC51	Inert waste	Alphanumeric
326	LCC52	Life cycle phase	Alphanumeric

SC	C	Scenario C	Certification Process
CS	9	Construction Segment 9	Active solar energy systems

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
10	ID10	Manufacturing code	Alphanumeric
11	ID11	Assembly site	Alphanumeric
12	ID12	Assembly code	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
26	DIM10	Mass per unit length	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)
28	DIM12	Mass density	Numeric (unit)
29	DIM13	Swing Angle	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
31	DIM15	Glass layer 1 thickness	Numeric (unit)
32	DIM16	Glass layer 2 thickness	Numeric (unit)
33	DIM17	Glass layer 3 thickness	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
35	DIM19	Glass color	Alphanumeric
36	DIM20	Is glass tempered	Boolean
37	DIM21	Is glass laminated	Boolean
38	DIM22	Is glass coated	Boolean
39	DIM23	Is glass wired	Boolean
40	DIM24	Glazing area	Numeric (-)
41	DIM25	Handle	Boolean
42	DIM26	Sill	Boolean
43	DIM27	Sill Height	Numeric (unit)
44	DIM28	Type of construction of windows	Alphanumeric
45	DIM29	Opening layout	Alphanumeric
46	DIM30	Opening style	Alphanumeric
47	DIM31	Frame depth	Numeric (unit)
48	DIM32	Frame thickness	Numeric (unit)
49	DIM33	Mullion shape	Alphanumeric
50	DIM34	Mullion dimensions	Alphanumeric
51	DIM35	Transom shape	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric
56	MF4	%mass of each materials used	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)
59	MP3	Sagging moment inertia	Numeric (unit)

60	MP4	Hogging moment inertia	Numeric (unit)
61	MP5	Young's modulus	Numeric (unit)
62	MP6	Bulk modulus	Numeric (unit)
63	MP7	Shear modulus	Numeric (unit)
64	MP8	Yield stress	Numeric (unit)
65	MP9	Shear strength	Numeric (unit)
66	MP10	Bending strength	Numeric (unit)
67	MP11	Tensile strength	Numeric (unit)
68	MP12	Poission's ratio	Numeric (-)
69	MP13	Spacer	Alphanumeric
70	MP14	Load bearing	Boolean
71	MP15	Mechanical load rating	Alphanumeric
72	MP16	Wind load resistance rating	Alphanumeric
73	MP17	Durability rating	Alphanumeric
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric
77	MP21	Bending resistance	Numeric (unit)
80	MP24	Breaking strength	Numeric (unit)
81	MP25	modulus of elasticity	Numeric (unit)
82	MP26	Elongation LD/TD – longitudinal/transverse direction	Numeric (unit)
83	MP27	Maximum tensile force LD/TD – longitudinal/transverse direction	Numeric (unit)
84	MP28	Resistance to racking	Numeric (unit)
85	MP29	Resistance to static torsion	Numeric (unit)
87	MP31	Resistance to tearing LD/TD – longitudinal/transverse direction	Numeric (unit)
88	MP32	Shear resistance	Numeric (unit)
89	MP33	Strength of corners	Numeric (unit)
91	MP35	Vertical load capacity	Numeric (unit)
92	MP36	Horizontal load capacity	Numeric (unit)
93	MP37	Cross panel tensile strength	Numeric (unit)
94	MP38	Adhesion by tensile bond strength at different temperatures	Alphanumeric
95	MP39	Complex stiffness/ modulus at different temperatures	Alphanumeric
96	MP40	Dynamic stiffness	Numeric (unit)
97	MP41	Dynamic stiffness /modulus	Numeric (unit)
98	MP42	Dynamic stiffness/ modulus at different temperatures	Alphanumeric
99	MP43	Fatigue life /strength	Numeric (unit)
100	MP44	Fatigue life/strength at different temperatures	Numeric (unit)
101	MP45	Fatigue strength	Numeric (unit)
102	MP46	Flexural and tensile behaviour at different temperatures	Alphanumeric
103	MP47	Low temperature cracking	Alphanumeric
104	MP48	Modulus of elasticity at different temperatures	Alphanumeric
105	MP49	Shear strength at different temperatures	Alphanumeric
106	MP50	Shear test at different temperatures	Alphanumeric
107	MP51	Tensile and compression behaviour at different temperatures	Alphanumeric
108	MP52	Tensile behavior at different temperatures	Alphanumeric
109	MP53	Tensile behaviour and elongation at different temperatures	Alphanumeric
110	MP54	Tensile strength at different temperatures	Alphanumeric
111	MP55	Thermo-mechanical fatigue life	Alphanumeric
112	MP56	Wide-width tensile test at different temperatures	Alphanumeric
113	MP57	Dynamic test of façade system in out of plane direction	Boolean

Nr.	**EP**	**Energy Parameters**	**Data Type**
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
115	EP2	Frame thermal transmittance (Uf)	Numeric (unit)
116	EP3	Glass thermal transmittance (Ug)	Numeric (unit)
117	EP4	Window thermal transmittance (Uw)	Numeric (unit)
118	EP5	Linear heat transfer coefficient ΨG	Numeric (unit)
119	EP6	Thermal conductivity	Numeric (unit)
120	EP7	Visible Light Reflectance	Numeric (-)
121	EP8	Visual Light Transmittance (VLT)	Numeric (-)
122	EP9	Solar Heat Gain Coefficient (SHGC)	Numeric (-)
123	EP10	Solar Absorption	Numeric (-)
124	EP11	Solar Reflectance	Numeric (-)
125	EP12	Solar Transmittance	Numeric (-)
126	EP13	Shading Coefficient	Numeric (-)
127	EP14	Energy Rating Scheme	Alphanumeric

128	EP15	Air Leakage	Alphanumeric
129	EP16	Air Leakage Standard	Alphanumeric
130	EP17	Water Resistance	Alphanumeric
131	EP18	Water Resistance Standard	Alphanumeric
132	EP19	Hygrothermal rating	Alphanumeric
133	EP20	Condensation Resistance	Alphanumeric
134	EP21	Condensation Resistance Standard	Alphanumeric
135	EP22	Shading elements	Boolean
136	EP23	Type of shading elements	Alphanumeric
137	EP24	Shading mechanically operated	Boolean
138	EP25	Shading elements control system	Alphanumeric
139	EP26	Integration of other systems	Alphanumeric
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric
143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric
145	EP32	Integration of control logics	Alphanumeric
146	EP33	Communication protocols	Alphanumeric
147	EP34	Integration with Building Management Systems (BMS)	Alphanumeric
148	EP35	Absorptance	Numeric (-)
149	EP36	Roughness	Numeric (-)
150	EP37	Maximum power	Numeric (unit)
151	EP38	Open-circuit voltage	Numeric (unit)
152	EP39	Short-circuit current	Numeric (unit)
153	EP40	Module efficiency	Numeric (-)
154	EP41	Solar cell type	Alphanumeric
155	EP42	Number of cells	Alphanumeric
159	EP46	Yearly/Monthly Energy Yield facing S	Numeric (unit)
160	EP47	Monthly Energy Yield facing N	Numeric (unit)
161	EP48	Monthly Energy Yield facing E	Numeric (unit)
162	EP49	Monthly Energy Yield facing W	Numeric (unit)
163	EP50	Monthly Energy Yield facing SE	Numeric (unit)
164	EP51	Monthly Energy Yield facing SW	Numeric (unit)
165	EP52	Monthly Energy Yield facing NE	Numeric (unit)
166	EP53	Monthly Energy Yield facing NW	Numeric (unit)

Nr.	**AP**	**Acoustic Parameters**	**Data Type**
167	AP1	Acoustic rating	Alphanumeric
168	AP2	Sound absorption	Numeric (unit)
169	AP3	Dynamic stiffness	Numeric (unit)
170	AP4	Compressibility	Numeric (unit)
171	AP5	Average apparent dynamic rigidity	Numeric (unit)
172	AP6	Resonance frequency	Numeric (unit)
173	AP7	Weighted sound reduction index	Numeric (unit)
174	AP8	Max acceleration (m/s2), SWD scales – modal analysis	Numeric (unit)
175	AP9	Building protection against vibration in the context of connections/joints between component materials and supporting structures	Alphanumeric
178	AP12	Impact sound insulation	Numeric (unit)
179	AP13	Airborne sound insulation	Numeric (unit)

Nr.	**D**	**Durability**	**Data Type**
181	D1	Evaluation of influence fungi and molds on properties innovative materials	Alphanumeric
182	D2	Freeze-thaw	Alphanumeric
184	D4	UV radiation	Alphanumeric
187	D7	Temperature + humidity	Alphanumeric
188	D8	SEM Electronic Microscopy	Alphanumeric
189	D9	OM Optical Microscopy	Alphanumeric
190	D10	FTIR Infrared Microscopy	Alphanumeric

Nr.	**GHG**	**Emission Parameters**	**Data Type**
191	GHG1	Coating Information	Alphanumeric
192	GHG2	VOC Content	Alphanumeric
193	GHG3	Solids Content	Alphanumeric
194	GHG4	HAPs Content	Alphanumeric
195	GHG5	Minimum Transfer Efficiency	Alphanumeric

196	GHG6	Emission Rates	Alphanumeric
197	GHG7	Maximum uncontrolled emissions	Alphanumeric
198	GHG8	Maximum controlled emissions rate	Alphanumeric
199	GHG9	Pollution control efficiency	Alphanumeric
200	GHG10	N2O content	Numeric (unit)
201	GHG11	CO content	Numeric (unit)
202	GHG12	CO2 content	Numeric (unit)
203	GHG13	Additional Emissions	Alphanumeric
204	GHG14	Standard of Performance	Alphanumeric
205	GHG15	Regulations	Alphanumeric

Nr.	**OU**	**Operation and Use**	**Data Type**
206	OU1	Operating temperature range	Numeric (unit)
207	OU2	Minimum Operation Space	Alphanumeric
208	OU3	Expected life	Alphanumeric
209	OU4	Adjustment of service life	Alphanumeric
210	OU5	Service life duration	Numeric (unit)
211	OU6	Average failure time	Numeric (unit)
216	OU11	Automatic operation	Alphanumeric
217	OU12	Operating limitations	Alphanumeric
218	OU13	Heat and humid climates	Alphanumeric
219	OU14	Temperature cycles	Alphanumeric
220	OU15	Humid and freezing nights	Alphanumeric
221	OU16	UV affectance (yellowing/discoloration,...)	Alphanumeric
222	OU17	High voltage operation (large connections/ installations)	Alphanumeric
223	OU18	Light Induced Degradation	Alphanumeric
224	OU19	Light and elevated temperature induced degradation	Alphanumeric
225	OU20	Shadowing tolerance	Alphanumeric
226	OU21	Hot Spot affectance	Alphanumeric

Nr.	**FP**	**Fire Protection**	**Data Type**
227	FP1	Fire Protection certificate	Alphanumeric
228	FP2	Flammability rating	Alphanumeric
229	FP3	Fragility rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric
231	FP5	Spread of flames	Alphanumeric
232	FP6	Compartmentation	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	**I**	**Installation**	**Data Type**
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
249	I4	Shelf life	Alphanumeric
254	I9	Affects surroundings	Alphanumeric
255	I10	Preventive measures	Alphanumeric
256	I11	Installation space	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric
261	I16	Time of installation	Alphanumeric

Nr.	**M**	**Maintainence**	**Data Type**
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
270	M9	Warranty content	Alphanumeric
272	M11	Warranty duration	Alphanumeric

Nr.	**LCC**	**LCC - LCA**	**Data Type**
275	LCC1	Raw material supply	Alphanumeric
276	LCC2	Recycled materials supply	Alphanumeric
277	LCC3	Raw materials road transportations	Alphanumeric
278	LCC4	Product manufacturing	Alphanumeric
279	LCC5	Packaging manufacturing	Alphanumeric
280	LCC6	Fuel type for transport	Alphanumeric
281	LCC7	Vehicle consumption	Alphanumeric
282	LCC8	Vehicle type	Alphanumeric

283	LCC9	Transport distance	Numeric (unit)
284	LCC10	Capacity utilisation	Alphanumeric
285	LCC11	Wastage of materials	Alphanumeric
286	LCC12	Output materials	Alphanumeric
287	LCC13	Use	Alphanumeric
288	LCC14	Maintenance	Alphanumeric
289	LCC15	Replacement	Alphanumeric
290	LCC16	Refurbishment	Alphanumeric
291	LCC17	Operational energy use	Numeric (unit)
292	LCC18	Operationale water use	Numeric (unit)
293	LCC19	Demolition	Alphanumeric
294	LCC20	Waste processing transport	Alphanumeric
295	LCC21	Recycling	Alphanumeric
296	LCC22	Disposal	Alphanumeric
297	LCC23	Collection process	Alphanumeric
298	LCC24	Recovery system	Alphanumeric
299	LCC25	Global Warming Potential (GWP)	Numeric (unit)
300	LCC26	Ozone Depletion (ODP)	Numeric (unit)
301	LCC27	Acidification potential (AP)	Numeric (unit)
302	LCC28	Eutrophication potential (EP)	Numeric (unit)
303	LCC29	Photochemical ozone creation (POPC)	Numeric (unit)
304	LCC30	Abiotic depletion potential for non-fossil resources (ADP-elements)	Numeric (unit)
305	LCC31	Abiotic depletion potential for fossil resources (ADP-fossil fuels)	Numeric (unit)
306	LCC32	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	Numeric (unit)
307	LCC33	Use of renewable primary energy used as raw materials	Numeric (unit)
308	LCC34	Total use of renewable primary energy resources	Numeric (unit)
309	LCC35	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	Numeric (unit)
310	LCC36	Use of non-renewable primary energy used as raw materials	Numeric (unit)
311	LCC37	Total use of non-renewable primary energy resources	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
313	LCC39	Use of secondary materials	Alphanumeric
314	LCC40	Use of renewable secondary fuels	Numeric (unit)
315	LCC41	Use of non-renewable secondary fuels	Numeric (unit)
316	LCC42	Use of net fresh water	Numeric (unit)
317	LCC43	Hazardous waste disposed	Numeric (unit)
318	LCC44	Non-hazardous waste disposed	Numeric (unit)
319	LCC45	Radioactive waste disposed	Numeric (unit)
320	LCC46	Components for re-use	Alphanumeric
321	LCC47	Materials for recycling	Alphanumeric
322	LCC48	Materials for energy recovery	Alphanumeric
323	LCC49	Exported energy	Numeric (unit)
324	LCC50	Resources depletion	Alphanumeric
325	LCC51	Inert waste	Alphanumeric
326	LCC52	Life cycle phase	Alphanumeric

SC	D	Scenario D	Installation, Monitoring, Operation and Maintenance (O&M)
CS	1	Construction Segment 1	Multifunctional, multilayer façade systems

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
10	ID10	Manufacturing code	Alphanumeric
11	ID11	Assembly site	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
31	DIM15	Glass layer 1 thickness	Numeric (unit)
32	DIM16	Glass layer 2 thickness	Numeric (unit)
33	DIM17	Glass layer 3 thickness	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
35	DIM19	Glass color	Alphanumeric
42	DIM26	Sill	Boolean
43	DIM27	Sill Height	Numeric (unit)
44	DIM28	Type of construction of windows	Alphanumeric
45	DIM29	Opening layout	Alphanumeric
46	DIM30	Opening style	Alphanumeric
47	DIM31	Frame depth	Numeric (unit)
48	DIM32	Frame thickness	Numeric (unit)
50	DIM34	Mullion dimensions	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)
59	MP3	Sagging moment inertia	Numeric (unit)
60	MP4	Hogging moment inertia	Numeric (unit)
71	MP15	Mechanical load rating	Alphanumeric
72	MP16	Wind load resistance rating	Alphanumeric
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric

Nr.	EP	Energy Parameters	Data Type
135	EP22	Shading elements	Boolean
136	EP23	Type of shading elements	Alphanumeric
137	EP24	Shading mechanically operated	Boolean
138	EP25	Shading elements control system	Alphanumeric

139	EP26	Integration of other systems	Alphanumeric
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric
143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric
145	EP32	Integration of control logics	Alphanumeric
146	EP33	Communication protocols	Alphanumeric
147	EP34	Integration with Building Management Systems (BMS)	Alphanumeric
151	EP38	Open-circuit voltage	Numeric (unit)
152	EP39	Short-circuit current	Numeric (unit)
154	EP41	Solar cell type	Alphanumeric
155	EP42	Number of cells	Alphanumeric

Nr.	**GHG**	**Emission Parameters**	**Data Type**
191	GHG1	Coating Information	Alphanumeric
192	GHG2	VOC Content	Alphanumeric
193	GHG3	Solids Content	Alphanumeric
194	GHG4	HAPs Content	Alphanumeric
195	GHG5	Minimum Transfer Efficiency	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric
197	GHG7	Maximum uncontrolled emissions	Alphanumeric
198	GHG8	Maximum controlled emissions rate	Alphanumeric
199	GHG9	Pollution control efficiency	Alphanumeric
200	GHG10	N2O content	Numeric (unit)
201	GHG11	CO content	Numeric (unit)
202	GHG12	CO2 content	Numeric (unit)
203	GHG13	Additional Emissions	Alphanumeric
204	GHG14	Standard of Performance	Alphanumeric
205	GHG15	Regulations	Alphanumeric

Nr.	**OU**	**Operation and Use**	**Data Type**
206	OU1	Operating temperature range	Numeric (unit)
207	OU2	Minimum Operation Space	Alphanumeric

Nr.	**FP**	**Fire Protection**	**Data Type**
227	FP1	Fire Protection certificate	Alphanumeric
233	FP7	Fire exit	Alphanumeric
234	FP8	Smoke stop	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	**PI**	**Packaging Information**	**Data Type**
237	PI1	Length of packaging unit	Alphanumeric
238	PI2	Width of packaging unit	Alphanumeric
239	PI3	Height of packaging unit	Alphanumeric
240	PI4	Weight of packaging unit	Alphanumeric
241	PI5	Contents of package	Alphanumeric
242	PI6	Special instructions	Alphanumeric
243	PI7	Container requirements	Alphanumeric
244	PI8	Wrapping requirements	Alphanumeric
245	PI9	Fragile nature	Alphanumeric

Nr.	**I**	**Installation**	**Data Type**
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
250	I5	Nature of the risk	Alphanumeric
251	I6	Risk cause	Alphanumeric
252	I7	Risk consequence	Alphanumeric
254	I9	Affects surroundings	Alphanumeric
255	I10	Preventive measures	Alphanumeric
256	I11	Installation space	Alphanumeric
257	I12	Installation date	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric
261	I16	Time of installation	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
268	M7	Warranty contact	Alphanumeric
269	M8	Extended warranty	Alphanumeric
270	M9	Warranty content	Alphanumeric
271	M10	Warranty exclusions	Alphanumeric
272	M11	Warranty duration	Alphanumeric
273	M12	Warranty start date	Alphanumeric
274	M13	Warranty end date	Alphanumeric

Nr.	LCC	LCC - LCA	Data Type
275	LCC1	Raw material supply	Alphanumeric
276	LCC2	Recycled materials supply	Alphanumeric
299	LCC25	Global Warming Potential (GWP)	Numeric (unit)

SC	D	Scenario D	Installation, Monitoring, Operation and Maintenance (O&M)
CS	2	Construction Segment 2	Cladding systems

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
11	ID11	Assembly site	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
35	DIM19	Glass color	Alphanumeric
42	DIM26	Sill	Boolean
43	DIM27	Sill Height	Numeric (unit)
44	DIM28	Type of construction of windows	Alphanumeric
45	DIM29	Opening layout	Alphanumeric
46	DIM30	Opening style	Alphanumeric
47	DIM31	Frame depth	Numeric (unit)
48	DIM32	Frame thickness	Numeric (unit)
49	DIM33	Mullion shape	Alphanumeric
50	DIM34	Mullion dimensions	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)
59	MP3	Sagging moment inertia	Numeric (unit)
60	MP4	Hogging moment inertia	Numeric (unit)
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric

Nr.	EP	Energy Parameters	Data Type
136	EP23	Type of shading elements	Alphanumeric
137	EP24	Shading mechanically operated	Boolean
138	EP25	Shading elements control system	Alphanumeric
139	EP26	Integration of other systems	Alphanumeric
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric
143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric

145	EP32	Integration of control logics	Alphanumeric
146	EP33	Communication protocols	Alphanumeric
147	EP34	Integration with Building Management Systems (BMS)	Alphanumeric

Nr.	GHG	Emission Parameters	Data Type
191	GHG1	Coating Information	Alphanumeric
192	GHG2	VOC Content	Alphanumeric
193	GHG3	Solids Content	Alphanumeric
194	GHG4	HAPs Content	Alphanumeric
195	GHG5	Minimum Transfer Efficiency	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric
197	GHG7	Maximum uncontrolled emissions	Alphanumeric
198	GHG8	Maximum controlled emissions rate	Alphanumeric
199	GHG9	Pollution control efficiency	Alphanumeric
200	GHG10	N2O content	Numeric (unit)
201	GHG11	CO content	Numeric (unit)
202	GHG12	CO2 content	Numeric (unit)
203	GHG13	Additional Emissions	Alphanumeric
204	GHG14	Standard of Performance	Alphanumeric
205	GHG15	Regulations	Alphanumeric

Nr.	OU	Operation and Use	Data Type
206	OU1	Operating temperature range	Numeric (unit)
207	OU2	Minimum Operation Space	Alphanumeric

Nr.	FP	Fire Protection	Data Type
227	FP1	Fire Protection certificate	Alphanumeric
228	FP2	Flammability rating	Alphanumeric
229	FP3	Fragility rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric
233	FP7	Fire exit	Alphanumeric
234	FP8	Smoke stop	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	PI	Packaging Information	Data Type
237	PI1	Length of packaging unit	Alphanumeric
238	PI2	Width of packaging unit	Alphanumeric
239	PI3	Height of packaging unit	Alphanumeric
240	PI4	Weight of packaging unit	Alphanumeric
241	PI5	Contents of package	Alphanumeric
242	PI6	Special instructions	Alphanumeric
243	PI7	Container requirements	Alphanumeric
244	PI8	Wrapping requirements	Alphanumeric
245	PI9	Fragile nature	Alphanumeric

Nr.	I	Installation	Data Type
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
250	I5	Nature of the risk	Alphanumeric
251	I6	Risk cause	Alphanumeric
252	I7	Risk consequence	Alphanumeric
253	I8	Risk rating	Alphanumeric
254	I9	Affects surroundings	Alphanumeric
255	I10	Preventive measures	Alphanumeric
256	I11	Installation space	Alphanumeric
257	I12	Installation date	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric
261	I16	Time of installation	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
268	M7	Warranty contact	Alphanumeric
269	M8	Extended warranty	Alphanumeric

270	M9	Warranty content	Alphanumeric
271	M10	Warranty exclusions	Alphanumeric
272	M11	Warranty duration	Alphanumeric
273	M12	Warranty start date	Alphanumeric
274	M13	Warranty end date	Alphanumeric

Nr.	**LCC**	**LCC - LCA**	**Data Type**
287	LCC13	Use	Alphanumeric
288	LCC14	Maintenance	Alphanumeric
289	LCC15	Replacement	Alphanumeric
295	LCC21	Recycling	Alphanumeric
296	LCC22	Disposal	Alphanumeric
297	LCC23	Collection process	Alphanumeric
298	LCC24	Recovery system	Alphanumeric
306	LCC32	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
314	LCC40	Use of renewable secondary fuels	Numeric (unit)
317	LCC43	Hazardous waste disposed	Numeric (unit)
318	LCC44	Non-hazardous waste disposed	Numeric (unit)
319	LCC45	Radioactive waste disposed	Numeric (unit)
320	LCC46	Components for re-use	Alphanumeric
321	LCC47	Materials for recycling	Alphanumeric

SC	D	Scenario D	Installation, Monitoring, Operation and Maintenance (O&M)
CS	3	Construction Segment 3	Coating and finishes

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
10	ID10	Manufacturing code	Alphanumeric
11	ID11	Assembly site	Alphanumeric
12	ID12	Assembly code	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
35	DIM19	Glass color	Alphanumeric
42	DIM26	Sill	Boolean
43	DIM27	Sill Height	Numeric (unit)
44	DIM28	Type of construction of windows	Alphanumeric
45	DIM29	Opening layout	Alphanumeric
46	DIM30	Opening style	Alphanumeric
47	DIM31	Frame depth	Numeric (unit)
48	DIM32	Frame thickness	Numeric (unit)
50	DIM34	Mullion dimensions	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)
59	MP3	Sagging moment inertia	Numeric (unit)
60	MP4	Hogging moment inertia	Numeric (unit)
73	MP17	Durability rating	Alphanumeric
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric

Nr.	EP	Energy Parameters	Data Type
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
120	EP7	Visible Light Reflectance	Numeric (-)
121	EP8	Visual Light Transmittance (VLT)	Numeric (-)
122	EP9	Solar Heat Gain Coefficient (SHGC)	Numeric (-)
125	EP12	Solar Transmittance	Numeric (-)
130	EP17	Water Resistance	Alphanumeric
137	EP24	Shading mechanically operated	Boolean
138	EP25	Shading elements control system	Alphanumeric

139	EP26	Integration of other systems	Alphanumeric
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric
143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric
145	EP32	Integration of control logics	Alphanumeric
146	EP33	Communication protocols	Alphanumeric
147	EP34	Integration with Building Management Systems (BMS)	Alphanumeric
149	EP36	Roughness	Numeric (-)
154	EP41	Solar cell type	Alphanumeric

Nr.	**GHG**	**Emission Parameters**	**Data Type**
191	GHG1	Coating Information	Alphanumeric
192	GHG2	VOC Content	Alphanumeric
193	GHG3	Solids Content	Alphanumeric
194	GHG4	HAPs Content	Alphanumeric
195	GHG5	Minimum Transfer Efficiency	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric
197	GHG7	Maximum uncontrolled emissions	Alphanumeric
198	GHG8	Maximum controlled emissions rate	Alphanumeric
199	GHG9	Pollution control efficiency	Alphanumeric
200	GHG10	N2O content	Numeric (unit)
201	GHG11	CO content	Numeric (unit)
202	GHG12	CO2 content	Numeric (unit)
203	GHG13	Additional Emissions	Alphanumeric
204	GHG14	Standard of Performance	Alphanumeric
205	GHG15	Regulations	Alphanumeric

Nr.	**OU**	**Operation and Use**	**Data Type**
206	OU1	Operating temperature range	Numeric (unit)
207	OU2	Minimum Operation Space	Alphanumeric
208	OU3	Expected life	Alphanumeric
209	OU4	Adjustment of service life	Alphanumeric
210	OU5	Service life duration	Numeric (unit)
212	OU7	Security rating	Alphanumeric
217	OU12	Operating limitations	Alphanumeric

Nr.	**FP**	**Fire Protection**	**Data Type**
227	FP1	Fire Protection certificate	Alphanumeric
233	FP7	Fire exit	Alphanumeric
234	FP8	Smoke stop	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	**PI**	**Packaging Information**	**Data Type**
237	PI1	Length of packaging unit	Alphanumeric
238	PI2	Width of packaging unit	Alphanumeric
239	PI3	Height of packaging unit	Alphanumeric
240	PI4	Weight of packaging unit	Alphanumeric
241	PI5	Contents of package	Alphanumeric
242	PI6	Special instructions	Alphanumeric
243	PI7	Container requirements	Alphanumeric
244	PI8	Wrapping requirements	Alphanumeric
245	PI9	Fragile nature	Alphanumeric

Nr.	**I**	**Installation**	**Data Type**
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
249	I4	Shelf life	Alphanumeric
250	I5	Nature of the risk	Alphanumeric
251	I6	Risk cause	Alphanumeric
252	I7	Risk consequence	Alphanumeric
253	I8	Risk rating	Alphanumeric
254	I9	Affects surroundings	Alphanumeric
255	I10	Preventive measures	Alphanumeric
256	I11	Installation space	Alphanumeric

257	I12	Installation date	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric
261	I16	Time of installation	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
267	M6	Warranty code	Numeric (-)
268	M7	Warranty contact	Alphanumeric
269	M8	Extended warranty	Alphanumeric
270	M9	Warranty content	Alphanumeric
271	M10	Warranty exclusions	Alphanumeric
272	M11	Warranty duration	Alphanumeric
273	M12	Warranty start date	Alphanumeric
274	M13	Warranty end date	Alphanumeric

Nr.	LCC	LCC - LCA	Data Type
279	LCC5	Packaging manufacturing	Alphanumeric
287	LCC13	Use	Alphanumeric
288	LCC14	Maintenance	Alphanumeric
289	LCC15	Replacement	Alphanumeric
291	LCC17	Operational energy use	Numeric (unit)
292	LCC18	Operationale water use	Numeric (unit)
306	LCC32	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	Numeric (unit)
307	LCC33	Use of renewable primary energy used as raw materials	Numeric (unit)
308	LCC34	Total use of renewable primary energy resources	Numeric (unit)
309	LCC35	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	Numeric (unit)
310	LCC36	Use of non-renewable primary energy used as raw materials	Numeric (unit)
311	LCC37	Total use of non-renewable primary energy resources	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
313	LCC39	Use of secondary materials	Alphanumeric
316	LCC42	Use of net fresh water	Numeric (unit)
317	LCC43	Hazardous waste disposed	Numeric (unit)
318	LCC44	Non-hazardous waste disposed	Numeric (unit)
326	LCC52	Life cycle phase	Alphanumeric

SC	D	Scenario D	Installation, Monitoring, Operation and Maintenance (O&M)
CS	4	Construction Segment 4	Glazing and frames

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
8	ID8	3D file	CAD file
9	ID9	Manufacturing site	Alphanumeric
11	ID11	Assembly site	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
24	DIM8	Volume	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
31	DIM15	Glass layer 1 thickness	Numeric (unit)
32	DIM16	Glass layer 2 thickness	Numeric (unit)
33	DIM17	Glass layer 3 thickness	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
35	DIM19	Glass color	Alphanumeric
36	DIM20	Is glass tempered	Boolean
37	DIM21	Is glass laminated	Boolean
38	DIM22	Is glass coated	Boolean
39	DIM23	Is glass wired	Boolean
40	DIM24	Glazing area	Numeric (-)
41	DIM25	Handle	Boolean
42	DIM26	Sill	Boolean
43	DIM27	Sill Height	Numeric (unit)
44	DIM28	Type of construction of windows	Alphanumeric
45	DIM29	Opening layout	Alphanumeric
46	DIM30	Opening style	Alphanumeric
47	DIM31	Frame depth	Numeric (unit)
48	DIM32	Frame thickness	Numeric (unit)
49	DIM33	Mullion shape	Alphanumeric
50	DIM34	Mullion dimensions	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)
59	MP3	Sagging moment inertia	Numeric (unit)
60	MP4	Hogging moment inertia	Numeric (unit)
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric

Nr.	EP	Energy Parameters	Data Type
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
115	EP2	Frame thermal transmittance (Uf)	Numeric (unit)

116	EP3	Glass thermal transmittance (Ug)	Numeric (unit)
117	EP4	Window thermal transmittance (Uw)	Numeric (unit)
118	EP5	Linear heat transfer coefficient ΨG	Numeric (unit)
120	EP7	Visible Light Reflectance	Numeric (-)
121	EP8	Visual Light Transmittance (VLT)	Numeric (-)
122	EP9	Solar Heat Gain Coefficient (SHGC)	Numeric (-)
123	EP10	Solar Absorption	Numeric (-)
124	EP11	Solar Reflectance	Numeric (-)
125	EP12	Solar Transmittance	Numeric (-)
137	EP24	Shading mechanically operated	Boolean
138	EP25	Shading elements control system	Alphanumeric
139	EP26	Integration of other systems	Alphanumeric
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric
143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric
145	EP32	Integration of control logics	Alphanumeric
146	EP33	Communication protocols	Alphanumeric
147	EP34	Integration with Building Management Systems (BMS)	Alphanumeric

Nr.	**AP**	**Acoustic Parameters**	**Data Type**
167	AP1	Acoustic rating	Alphanumeric
173	AP7	Weighted sound reduction index	Numeric (unit)

Nr.	**GHG**	**Emission Parameters**	**Data Type**
191	GHG1	Coating Information	Alphanumeric
192	GHG2	VOC Content	Alphanumeric
193	GHG3	Solids Content	Alphanumeric
194	GHG4	HAPs Content	Alphanumeric
195	GHG5	Minimum Transfer Efficiency	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric
197	GHG7	Maximum uncontrolled emissions	Alphanumeric
198	GHG8	Maximum controlled emissions rate	Alphanumeric
199	GHG9	Pollution control efficiency	Alphanumeric
200	GHG10	N2O content	Numeric (unit)
201	GHG11	CO content	Numeric (unit)
202	GHG12	CO2 content	Numeric (unit)
203	GHG13	Additional Emissions	Alphanumeric
204	GHG14	Standard of Performance	Alphanumeric
205	GHG15	Regulations	Alphanumeric

Nr.	**OU**	**Operation and Use**	**Data Type**
206	OU1	Operating temperature range	Numeric (unit)
207	OU2	Minimum Operation Space	Alphanumeric
212	OU7	Security rating	Alphanumeric
216	OU11	Automatic operation	Alphanumeric
217	OU12	Operating limitations	Alphanumeric

Nr.	**FP**	**Fire Protection**	**Data Type**
227	FP1	Fire Protection certificate	Alphanumeric
228	FP2	Flammability rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric
231	FP5	Spread of flames	Alphanumeric
233	FP7	Fire exit	Alphanumeric
234	FP8	Smoke stop	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	**PI**	**Packaging Information**	**Data Type**
237	PI1	Length of packaging unit	Alphanumeric
238	PI2	Width of packaging unit	Alphanumeric
239	PI3	Height of packaging unit	Alphanumeric
240	PI4	Weight of packaging unit	Alphanumeric
241	PI5	Contents of package	Alphanumeric
242	PI6	Special instructions	Alphanumeric
243	PI7	Container requirements	Alphanumeric
244	PI8	Wrapping requirements	Alphanumeric

245	PI9	Fragile nature	Alphanumeric

Nr.	I	Installation	Data Type
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
254	I9	Affects surroundings	Alphanumeric
255	I10	Preventive measures	Alphanumeric
257	I12	Installation date	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
268	M7	Warranty contact	Alphanumeric
269	M8	Extended warranty	Alphanumeric
270	M9	Warranty content	Alphanumeric
271	M10	Warranty exclusions	Alphanumeric
272	M11	Warranty duration	Alphanumeric
273	M12	Warranty start date	Alphanumeric
274	M13	Warranty end date	Alphanumeric

SC	D	Scenario D	Installation, Monitoring, Operation and Maintenance (O&M)
CS	5	Construction Segment 5	Membranes

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
27	DIM11	Mass per unit area	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
35	DIM19	Glass color	Alphanumeric
42	DIM26	Sill	Boolean
43	DIM27	Sill Height	Numeric (unit)
44	DIM28	Type of construction of windows	Alphanumeric
45	DIM29	Opening layout	Alphanumeric
46	DIM30	Opening style	Alphanumeric
47	DIM31	Frame depth	Numeric (unit)
48	DIM32	Frame thickness	Numeric (unit)
50	DIM34	Mullion dimensions	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)
59	MP3	Sagging moment inertia	Numeric (unit)
60	MP4	Hogging moment inertia	Numeric (unit)
65	MP9	Shear strength	Numeric (unit)
67	MP11	Tensile strength	Numeric (unit)
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric

Nr.	EP	Energy Parameters	Data Type
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
130	EP17	Water Resistance	Alphanumeric
137	EP24	Shading mechanically operated	Boolean
138	EP25	Shading elements control system	Alphanumeric
139	EP26	Integration of other systems	Alphanumeric
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric
143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric
145	EP32	Integration of control logics	Alphanumeric
146	EP33	Communication protocols	Alphanumeric
147	EP34	Integration with Building Management Systems (BMS)	Alphanumeric

Nr.	GHG	Emission Parameters	Data Type
191	GHG1	Coating Information	Alphanumeric
192	GHG2	VOC Content	Alphanumeric
193	GHG3	Solids Content	Alphanumeric
194	GHG4	HAPs Content	Alphanumeric
195	GHG5	Minimum Transfer Efficiency	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric
197	GHG7	Maximum uncontrolled emissions	Alphanumeric
198	GHG8	Maximum controlled emissions rate	Alphanumeric
199	GHG9	Pollution control efficiency	Alphanumeric
200	GHG10	N2O content	Numeric (unit)
201	GHG11	CO content	Numeric (unit)
202	GHG12	CO2 content	Numeric (unit)
203	GHG13	Additional Emissions	Alphanumeric
204	GHG14	Standard of Performance	Alphanumeric
205	GHG15	Regulations	Alphanumeric

Nr.	OU	Operation and Use	Data Type
206	OU1	Operating temperature range	Numeric (unit)
207	OU2	Minimum Operation Space	Alphanumeric
210	OU5	Service life duration	Numeric (unit)

Nr.	FP	Fire Protection	Data Type
227	FP1	Fire Protection certificate	Alphanumeric
228	FP2	Flammability rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric
231	FP5	Spread of flames	Alphanumeric
233	FP7	Fire exit	Alphanumeric
234	FP8	Smoke stop	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	PI	Packaging Information	Data Type
237	PI1	Length of packaging unit	Alphanumeric
238	PI2	Width of packaging unit	Alphanumeric
239	PI3	Height of packaging unit	Alphanumeric
240	PI4	Weight of packaging unit	Alphanumeric
241	PI5	Contents of package	Alphanumeric
242	PI6	Special instructions	Alphanumeric
243	PI7	Container requirements	Alphanumeric
244	PI8	Wrapping requirements	Alphanumeric
245	PI9	Fragile nature	Alphanumeric

Nr.	I	Installation	Data Type
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
254	I9	Affects surroundings	Alphanumeric
255	I10	Preventive measures	Alphanumeric
257	I12	Installation date	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
268	M7	Warranty contact	Alphanumeric
269	M8	Extended warranty	Alphanumeric
270	M9	Warranty content	Alphanumeric
271	M10	Warranty exclusions	Alphanumeric
272	M11	Warranty duration	Alphanumeric
273	M12	Warranty start date	Alphanumeric
274	M13	Warranty end date	Alphanumeric

Nr.	LCC	LCC - LCA	Data Type
299	LCC25	Global Warming Potential (GWP)	Numeric (unit)
300	LCC26	Ozone Depletion (ODP)	Numeric (unit)

SC	D	Scenario D	Installation, Monitoring, Operation and Maintenance (O&M)
CS	6	Construction Segment 6	Joints and connectors

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
35	DIM19	Glass color	Alphanumeric
42	DIM26	Sill	Boolean
43	DIM27	Sill Height	Numeric (unit)
44	DIM28	Type of construction of windows	Alphanumeric
45	DIM29	Opening layout	Alphanumeric
46	DIM30	Opening style	Alphanumeric
47	DIM31	Frame depth	Numeric (unit)
48	DIM32	Frame thickness	Numeric (unit)
50	DIM34	Mullion dimensions	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)
59	MP3	Sagging moment inertia	Numeric (unit)
60	MP4	Hogging moment inertia	Numeric (unit)
67	MP11	Tensile strength	Numeric (unit)
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric

Nr.	EP	Energy Parameters	Data Type
137	EP24	Shading mechanically operated	Boolean
138	EP25	Shading elements control system	Alphanumeric
139	EP26	Integration of other systems	Alphanumeric
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric
143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric
145	EP32	Integration of control logics	Alphanumeric
146	EP33	Communication protocols	Alphanumeric
147	EP34	Integration with Building Management Systems (BMS)	Alphanumeric

Nr.	GHG	Emission Parameters	Data Type
191	GHG1	Coating Information	Alphanumeric

192	GHG2	VOC Content	Alphanumeric
193	GHG3	Solids Content	Alphanumeric
194	GHG4	HAPs Content	Alphanumeric
195	GHG5	Minimum Transfer Efficiency	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric
197	GHG7	Maximum uncontrolled emissions	Alphanumeric
198	GHG8	Maximum controlled emissions rate	Alphanumeric
199	GHG9	Pollution control efficiency	Alphanumeric
200	GHG10	N2O content	Numeric (unit)
201	GHG11	CO content	Numeric (unit)
202	GHG12	CO2 content	Numeric (unit)
203	GHG13	Additional Emissions	Alphanumeric
204	GHG14	Standard of Performance	Alphanumeric
205	GHG15	Regulations	Alphanumeric

Nr.	OU	Operation and Use	Data Type
206	OU1	Operating temperature range	Numeric (unit)
207	OU2	Minimum Operation Space	Alphanumeric

Nr.	FP	Fire Protection	Data Type
227	FP1	Fire Protection certificate	Alphanumeric
233	FP7	Fire exit	Alphanumeric
234	FP8	Smoke stop	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	PI	Packaging Information	Data Type
237	PI1	Length of packaging unit	Alphanumeric
238	PI2	Width of packaging unit	Alphanumeric
239	PI3	Height of packaging unit	Alphanumeric
240	PI4	Weight of packaging unit	Alphanumeric
241	PI5	Contents of package	Alphanumeric
242	PI6	Special instructions	Alphanumeric
243	PI7	Container requirements	Alphanumeric
244	PI8	Wrapping requirements	Alphanumeric
245	PI9	Fragile nature	Alphanumeric

Nr.	I	Installation	Data Type
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
254	I9	Affects surroundings	Alphanumeric
255	I10	Preventive measures	Alphanumeric
257	I12	Installation date	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
268	M7	Warranty contact	Alphanumeric
269	M8	Extended warranty	Alphanumeric
270	M9	Warranty content	Alphanumeric
271	M10	Warranty exclusions	Alphanumeric
272	M11	Warranty duration	Alphanumeric
273	M12	Warranty start date	Alphanumeric
274	M13	Warranty end date	Alphanumeric

SC	D	Scenario D	Installation, Monitoring, Operation and Maintenance (O&M)
CS	7	Construction Segment 7	Insulation

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
9	ID9	Manufacturing site	Alphanumeric
11	ID11	Assembly site	Alphanumeric
13	ID13	Product certification	Alphanumeric
15	ID15	Cost of installation	Cost

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
35	DIM19	Glass color	Alphanumeric
42	DIM26	Sill	Boolean
43	DIM27	Sill Height	Numeric (unit)
44	DIM28	Type of construction of windows	Alphanumeric
45	DIM29	Opening layout	Alphanumeric
46	DIM30	Opening style	Alphanumeric
47	DIM31	Frame depth	Numeric (unit)
48	DIM32	Frame thickness	Numeric (unit)
50	DIM34	Mullion dimensions	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)
59	MP3	Sagging moment inertia	Numeric (unit)
60	MP4	Hogging moment inertia	Numeric (unit)
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric

Nr.	EP	Energy Parameters	Data Type
114	EP1	Thermal Transmittance (U-value)	Numeric (unit)
137	EP24	Shading mechanically operated	Boolean
138	EP25	Shading elements control system	Alphanumeric
139	EP26	Integration of other systems	Alphanumeric
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric
143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric
145	EP32	Integration of control logics	Alphanumeric
146	EP33	Communication protocols	Alphanumeric
147	EP34	Integration with Building Management Systems (BMS)	Alphanumeric

Nr.	GHG	Emission Parameters	Data Type
191	GHG1	Coating Information	Alphanumeric

192	GHG2	VOC Content	Alphanumeric
193	GHG3	Solids Content	Alphanumeric
194	GHG4	HAPs Content	Alphanumeric
195	GHG5	Minimum Transfer Efficiency	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric
197	GHG7	Maximum uncontrolled emissions	Alphanumeric
198	GHG8	Maximum controlled emissions rate	Alphanumeric
199	GHG9	Pollution control efficiency	Alphanumeric
200	GHG10	N2O content	Numeric (unit)
201	GHG11	CO content	Numeric (unit)
202	GHG12	CO2 content	Numeric (unit)
203	GHG13	Additional Emissions	Alphanumeric
204	GHG14	Standard of Performance	Alphanumeric
205	GHG15	Regulations	Alphanumeric

Nr.	OU	Operation and Use	Data Type
206	OU1	Operating temperature range	Numeric (unit)
207	OU2	Minimum Operation Space	Alphanumeric

Nr.	FP	Fire Protection	Data Type
227	FP1	Fire Protection certificate	Alphanumeric
231	FP5	Spread of flames	Alphanumeric
233	FP7	Fire exit	Alphanumeric
234	FP8	Smoke stop	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	PI	Packaging Information	Data Type
237	PI1	Length of packaging unit	Alphanumeric
238	PI2	Width of packaging unit	Alphanumeric
239	PI3	Height of packaging unit	Alphanumeric
240	PI4	Weight of packaging unit	Alphanumeric
241	PI5	Contents of package	Alphanumeric
242	PI6	Special instructions	Alphanumeric
243	PI7	Container requirements	Alphanumeric
244	PI8	Wrapping requirements	Alphanumeric
245	PI9	Fragile nature	Alphanumeric

Nr.	I	Installation	Data Type
246	I1	Minimum man power	Alphanumeric
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
254	I9	Affects surroundings	Alphanumeric
255	I10	Preventive measures	Alphanumeric
257	I12	Installation date	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
268	M7	Warranty contact	Alphanumeric
269	M8	Extended warranty	Alphanumeric
270	M9	Warranty content	Alphanumeric
271	M10	Warranty exclusions	Alphanumeric
272	M11	Warranty duration	Alphanumeric
273	M12	Warranty start date	Alphanumeric
274	M13	Warranty end date	Alphanumeric

SC	D	Scenario D	Installation, Monitoring, Operation and Maintenance (O&M)
CS	8	Construction Segment 8	Green roofs and green façades

Nr.	EP	Energy Parameters	Data Type
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric
143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric
145	EP32	Integration of control logics	Alphanumeric
146	EP33	Communication protocols	Alphanumeric
147	EP34	Integration with Building Management Systems (BMS)	Alphanumeric

Nr.	GHG	Emission Parameters	Data Type
191	GHG1	Coating Information	Alphanumeric
192	GHG2	VOC Content	Alphanumeric
193	GHG3	Solids Content	Alphanumeric
194	GHG4	HAPs Content	Alphanumeric
195	GHG5	Minimum Transfer Efficiency	Alphanumeric
196	GHG6	Emission Rates	Alphanumeric
197	GHG7	Maximum uncontrolled emissions	Alphanumeric
198	GHG8	Maximum controlled emissions rate	Alphanumeric
199	GHG9	Pollution control efficiency	Alphanumeric
200	GHG10	N2O content	Numeric (unit)
201	GHG11	CO content	Numeric (unit)
202	GHG12	CO2 content	Numeric (unit)
203	GHG13	Additional Emissions	Alphanumeric
204	GHG14	Standard of Performance	Alphanumeric
205	GHG15	Regulations	Alphanumeric

Nr.	I	Installation	Data Type
246	I1	Minimum man power	Alphanumeric
254	I9	Affects surroundings	Alphanumeric
257	I12	Installation date	Alphanumeric

SC	D	Scenario D	Installation, Monitoring, Operation and Maintenance (O&M)
CS	9	Construction Segment 9	Active solar energy systems

Nr.	ID	Identity	Data Type
1	ID1	Category	Alphanumeric
2	ID2	Manufacturer	Alphanumeric
3	ID3	Model Number	Alphanumeric
4	ID4	Model Name	Alphanumeric
5	ID5	Brand URL	link
6	ID6	Product URL	link
7	ID7	Image	JPG file
9	ID9	Manufacturing site	Alphanumeric
11	ID11	Assembly site	Alphanumeric
13	ID13	Product certification	Alphanumeric
14	ID14	Cost per unit	Cost
15	ID15	Cost of installation	Cost
16	ID16	Define 1 unit	Alphanumeric

Nr.	DIM	Dimensions	Data Type
17	DIM1	Height of unit	Numeric (unit)
18	DIM2	Width of unit	Numeric (unit)
19	DIM3	Length of unit	Numeric (unit)
20	DIM4	Thickness	Numeric (unit)
21	DIM5	Depth	Numeric (unit)
22	DIM6	Diameter	Numeric (unit)
23	DIM7	Area	Numeric (unit)
25	DIM9	Weight	Numeric (unit)
30	DIM14	Glass layers	Numeric (unit)
34	DIM18	Gas filled	Alphanumeric
35	DIM19	Glass color	Alphanumeric
42	DIM26	Sill	Boolean
43	DIM27	Sill Height	Numeric (unit)
44	DIM28	Type of construction of windows	Alphanumeric
45	DIM29	Opening layout	Alphanumeric
46	DIM30	Opening style	Alphanumeric
47	DIM31	Frame depth	Numeric (unit)
48	DIM32	Frame thickness	Numeric (unit)
49	DIM33	Mullion shape	Alphanumeric
50	DIM34	Mullion dimensions	Alphanumeric
52	DIM36	Transom dimensions	Alphanumeric

Nr.	MF	Material and Finishes	Data Type
53	MF1	Material	Alphanumeric
54	MF2	Color	Alphanumeric
55	MF3	Corrosion treatment	Alphanumeric

Nr.	MP	Mechanical Properties	Data Type
57	MP1	Sagging moment capacity	Numeric (unit)
58	MP2	Hogging moment capacity	Numeric (unit)
59	MP3	Sagging moment inertia	Numeric (unit)
60	MP4	Hogging moment inertia	Numeric (unit)
73	MP17	Durability rating	Alphanumeric
74	MP18	Type of fastener	Alphanumeric
75	MP19	Type of connector	Alphanumeric
76	MP20	Type of joint	Alphanumeric

Nr.	EP	Energy Parameters	Data Type
130	EP17	Water Resistance	Alphanumeric
131	EP18	Water Resistance Standard	Alphanumeric
132	EP19	Hygrothermal rating	Alphanumeric
137	EP24	Shading mechanically operated	Boolean
138	EP25	Shading elements control system	Alphanumeric
139	EP26	Integration of other systems	Alphanumeric
140	EP27	Integrated heating/cooling pump	Alphanumeric
141	EP28	Intergated heat recovery system	Alphanumeric
142	EP29	Integrated ventilation system	Alphanumeric
143	EP30	Sensors	Alphanumeric
144	EP31	Actuator control	Alphanumeric

145	EP32	Integration of control logics	Alphanumeric
146	EP33	Communication protocols	Alphanumeric
147	EP34	Integration with Building Management Systems (BMS)	Alphanumeric
150	EP37	Maximum power	Numeric (unit)
153	EP40	Module efficiency	Numeric (-)
154	EP41	Solar cell type	Alphanumeric

Nr.	GHG	Emission Parameters	Data Type
191	GHG1	Coating Information	Alphanumeric

Nr.	OU	Operation and Use	Data Type
206	OU1	Operating temperature range	Numeric (unit)
207	OU2	Minimum Operation Space	Alphanumeric
208	OU3	Expected life	Alphanumeric
212	OU7	Security rating	Alphanumeric
217	OU12	Operating limitations	Alphanumeric

Nr.	FP	Fire Protection	Data Type
227	FP1	Fire Protection certificate	Alphanumeric
228	FP2	Flammability rating	Alphanumeric
229	FP3	Fragility rating	Alphanumeric
230	FP4	Combustibility	Alphanumeric
231	FP5	Spread of flames	Alphanumeric
233	FP7	Fire exit	Alphanumeric
234	FP8	Smoke stop	Alphanumeric
235	FP9	Important considerations	Alphanumeric
236	FP10	Standard	Alphanumeric

Nr.	PI	Packaging Information	Data Type
237	PI1	Length of packaging unit	Alphanumeric
238	PI2	Width of packaging unit	Alphanumeric
239	PI3	Height of packaging unit	Alphanumeric
240	PI4	Weight of packaging unit	Alphanumeric
241	PI5	Contents of package	Alphanumeric
242	PI6	Special instructions	Alphanumeric
243	PI7	Container requirements	Alphanumeric
244	PI8	Wrapping requirements	Alphanumeric
245	PI9	Fragile nature	Alphanumeric

Nr.	I	Installation	Data Type
247	I2	Application temperature	Alphanumeric
248	I3	Application Method	Alphanumeric
249	I4	Shelf life	Alphanumeric
254	I9	Affects surroundings	Alphanumeric
255	I10	Preventive measures	Alphanumeric
256	I11	Installation space	Alphanumeric
257	I12	Installation date	Alphanumeric
258	I13	Installation guide	Link
259	I14	Mounting technique	Alphanumeric
260	I15	Special equipment required	Alphanumeric

Nr.	M	Maintainence	Data Type
262	M1	Frequency of Mandatory Inspection	Alphanumeric
263	M2	Maintenance type	Alphanumeric
268	M7	Warranty contact	Alphanumeric
269	M8	Extended warranty	Alphanumeric
270	M9	Warranty content	Alphanumeric
271	M10	Warranty exclusions	Alphanumeric
272	M11	Warranty duration	Alphanumeric
273	M12	Warranty start date	Alphanumeric
274	M13	Warranty end date	Alphanumeric

Nr.	LCC	LCC - LCA	Data Type
299	LCC25	Global Warming Potential (GWP)	Numeric (unit)
300	LCC26	Ozone Depletion (ODP)	Numeric (unit)
301	LCC27	Acidification potential (AP)	Numeric (unit)
302	LCC28	Eutrophication potential (EP)	Numeric (unit)
303	LCC29	Photochemical ozone creation (POPC)	Numeric (unit)

304	LCC30	Abiotic depletion potential for non-fossil resources (ADP-elements)	Numeric (unit)
305	LCC31	Abiotic depletion potential for fossil resources (ADP-fossil fuels)	Numeric (unit)
308	LCC34	Total use of renewable primary energy resources	Numeric (unit)
311	LCC37	Total use of non-renewable primary energy resources	Numeric (unit)
312	LCC38	Total primary energy consumption	Numeric (unit)
326	LCC52	Life cycle phase	Alphanumeric