Environmental Product Declaration

In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

Leisure seating family

Included products: ONIK, LUMIERE MDF, LUMIERE PP and TOP

from

Figueras Seating Europe S.L.

Programme:	The International EPD System, www.environdec.com
Programme operator:	EPD International AB
Type of EPD:	EPD of multiple products from a company
EPD registration number:	EPD-IES-00XXXXX
Version date:	20YY-MM-DD
Validity date:	20YY-MM-DD

EPD of multiple products, based on a representative product (ONIK)
An EPD may be updated or depublished if conditions change. To find the latest version of the EPD and to confirm its validity, see www.environdec.com

GENERAL INFORMATION

Programme Information	
Programme:	The International EPD® System
Address:	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
Website:	www.environdec.com
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Product Category Rules (PCR)
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): PCR 2019:14 Construction products, version 2.0.1, published on 2025-06-05 and valid until 2030-04-07 and c-PCR-021 Furniture and components of furniture (NPCR 026), Version 3, published in October 2024 and valid until October 2027.
PCR review was conducted by: *The Technical Committee of the International EPD System. A full list of members is available on www.environdec.com. The review panel may be contacted via support@environdec.com. Chairs of the PCR Review: Rob Rouwette (chair) and Noa Meron (co-chair).*

Third-party Verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: ☒ **Individual EPD verification without a pre-verified LCA/EPD tool** Third-party verifier: Elisabet Amat, GREENIZE Approved by: International EPD System
Procedure for follow-up of data during EPD validity involves third party verifier: ☐ Yes ☒ No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but published in different EPD programmes, may not be comparable. For two EPDs to be comparable, they shall be based on the same PCR (including the same first-digit version number) or be based on fully aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have identical scope in terms of included life-cycle stages (unless the excluded life-cycle stage is demonstrated to be insignificant); apply identical impact assessment methods (including the same version of characterisation factors); and be valid at the time of comparison.
For further information about comparability, see EN 15804 and ISO 14025.

INFORMATION ABOUT EPD OWNER

Owner of the EPD: Figueras Seating Europe S.L.
Address: Anselm Clavé, 224, Lliçà d'Amunt, 08186 Barcelona, Spain
Contact: Vanessa Prat, vprat@figueras.com
Company website for more information: https://figueras.com/
Address and contact information of the LCA practitioner commissioned by the EPD owner: Anthesis Group Located in Rambla de Catalunya, 6, principal, 08007 Barcelona +34 938 515 055 www.anthesisgroup.com
Description of the organisation: Figueras Seating Europe S.L. is a global benchmark in the creation of seating. The company, founded in Barcelona in 1929 and still headquartered in the same city, specializes in developing fixed and mobile seating solutions for public spaces. With 95 years of experience, Figueras has carried out more than 40,000 projects in 130 countries, where over 10 million seats have been installed.
Product-related or management system-related certifications:
ISO 9001:2015 and ISO 14001:2015 Design, sale, manufacturing, supply and installation of seating for public facilities. In addition to UNE-EN ISO 14006:2020 Environmental management systems. Guidelines for the incorporation of ecodesign. Environmental design and development for the stages related to the acquisition and selection of raw materials, manufacturing, distribution and transport, use, and end of life of seats.

PRODUCT INFORMATION

Product name: ONIK
Product identification: This EPD covers a family of four different seats represented by the Onik seat, which is the best-selling product of this family of products. The following list includes the multiple seats that covers this EPD and their specifications:

ONIK

Folding seat with advanced controlled-return technology, ideal for sports facilities and multipurpose venues. Composed of upholstered cushions combined with polypropylene shells, it ensures exceptional performance and durability. Its automatic folding system for both seat and backrest provides great compactness when folded, optimizing space. Dimensions are 460mm width, 165 depth and 870 height.
The structure is made of steel tubing and sheet with continuous welding, complying with European standards, and protected with an anti-corrosion surface and polyester paint coating for maximum durability. The seat and backrest shells are made of fiberglass-reinforced polypropylene, while the sides are made of polyamide with 50% fiberglass with a textured finish. The seat and backrest include modular cushions with high-density cold-moulded polyurethane foam and upholstered, providing both comfort and durability. The upholstery offers excellent high abrasion resistance, and complies with fire reaction standards. Overall, the product achieves UNE-EN 12727 Level 4 classification, suitable for heavy-duty use.

LUMIÈRE MDF & LUMIÈRE PP

Lumière is an armchair designed to offer maximum comfort and style, with a wide range of configurations that adapt to Premium and VIP spaces. The armchair is designed for installation in rows or individually. It features a foldable seat that ensures optimal adaptability and compliance with free passage regulations. This Lumière seat model with a dimensions of 620 width, 1140 height and 780 depth can have armrests made of MDF or PP. The structure is made of steel tubing and sheet with continuous arc welding. The steel components comply with European standards: tubes up to 2 mm thick follow UNE-EN 10305-3 E-220, tubes over 2 mm follow S275JR, and sheets comply with EN 10111 DD12; exterior fasteners are ZN-NI. The backrest shell is high-pressure injection-molded from polypropylene copolymer, a durable, impact-resistant plastic with pigmented, textured surface finish. Polypropylene parts meet ISO 527-2 standards for tensile strength (26 MPa) and modulus of elasticity (1250 MPa). Seat and backrest cushions are upholstered and made of cold-molded polyurethane foam, supported by internal metal tubular structures and steel plates with springs, ensuring long-lasting comfort and resistance to deformation. Seat foam density is 60–65 kg/m³ and backrest 50–55 kg/m³. Overall, the product achieves UNE-EN 12727 Level 4 classification, suitable for heavy-duty use.

TOP

The TOP seats feature a functional design and an automatic folding system, mounted on two metal legs that have an integrated ball joint housing system with a locking mechanism, which receives the seat shaft and allows for easy replacement without dismantling the chair. Dimensions are 500mm width, 770mm depth and 450mm height. They are made up of easily replaceable components and generous dimensions, ensuring comfort and versatility.

The structure is made of steel tube and sheet with arc welding, using metallic parts compliant with European standards (E-220, S275JR, DD12), protected by an anti-corrosion surface and polyester paint coating for maximum durability. The seat and back shells are injection-molded from polypropylene copolymer, impact-resistant, while the cushions use cold-molded polyurethane foam with differentiated densities for seat and back, ensuring comfort and resilience even under intensive use. Upholstery with high resistance to abrasion, together with anti-corrosion fasteners, guarantee a robust and durable product suitable for demanding conditions (UNE-EN 12727, Level 4).

UN CPC code: CPC 3811 Seats

Product description: The Onik seat is an automatic folding seat. It is designed for stadiums, arenas and waiting areas. It offers multiple accessories and a side support attached to the seat. Its structure is metal, with the seat and backrest protected by upholstered cushions. The seat is equipped with protective plastic shells. Armrests with integrated cup holders can be installed as an option. The version of the seat that has been analysed is the simplest, i.e. without accessories, but also the most conservative, as the accessories that can be shared between seats have been assigned entirely to the seat under study. This model has been selected as a representative product because it was the best-selling model in 2024.

Name and location of production site(s): Lliçà d'Amunt, 08186 Barcelona, Spain

CONTENT DECLARATION

The following tables shows the content declaration of the ONIK seat, which is the representative product of the family.

Product content	Mass, kg	Post-consumer recycled material, mass-% of product	Biogenic material, mass-% of product	Biogenic material, kg C/product
Steel	6.51	31.4	0	0
PP	3.61	0	0	0
PU	1.69	0	0	0
Nylon	1.15	0	0	0
Upholsery of PVC and Polyester	0.73	0	0	0
TOTAL	13.69	14.9	0	0

Packaging materials	Mass, kg	Mass-% (versus the product)	Biogenic material, kg C/product
Cardboard	0.43	0.03	0.19
Wood	0.39	0.03	0.21
Plastic	0.03	0.002	0
TOTAL	0.84	0.06	0.40

1 kg biogenic carbon in the product/packaging is equivalent to the uptake of 44/12 kg of CO_2.

No substances contained in the product declared within this EPD exceed the limits for registration with the candidate list of Substances of Very High Concern (SVHCs) of the European Chemicals Agency.

LCA INFORMATION

Functional unit: One unit of seating to seat single occupant, maintained for a 15-yr period.
Time representativeness: The life cycle analysis has been based on relative data from 2023 for the production plant, and 2024 for the raw materials composition of the seat.
Geographical scope: Manufacturing site is located in Spain. Market for the product is global.
Database(s) and LCA software used: The primary inventory data has been obtained from Figueras Seating Europe S.L. corresponding to the seats produced at Lliçà d'Amunt (Barcelona, Spain).
The secondary data has been extracted from the Ecoinvent v3.11 database, included in the SimaPro v10.2.0 software and internationally recognized. Wherever possible, inventory data relating to the specific study countries, or in its absence from Europe in general, has been selected. These have been used for the stage of production and transport of raw materials, as well as for electricity generation or waste management processes, over which the manufacturer has no direct influence.

Description of system boundaries:
Description of the EPD system boundary as “Cradle to gate with options, modules C1–C4, module D and with optional modules (A1–A3 + C + D and additional modules).” The additional modules are B1–B7”

Product stage A1-A3

A1, Raw materials extraction and processing

All raw materials are produced externally; therefore, Figueras Seating Europe S.L. manufactures the seats using raw materials that come from their providers production plants. A manufacturing process has been included for all these components that originate outside the Figueras Seating Europe S.L. facility.

This stage also includes the generation of the electricity used at the Figueras Seating Europe S.L. production plant, along with a small amount of electricity consumption for the pre-assembly of the seats. The climate impact of 100% renewable electricity, of wind origin, purchased in the manufacturing process, is 0.004 kg CO_2 eq./kWh.

A2, Transport

The raw materials are transported by medium and small truck, and ship from the supplier to the production site of Figueras Seating Europe S.L. located in Lliçà d’Amunt, Barcelona (Spain). It is assumed that all transport carried out by lorry complies with the European emission standard Euro VI, although for suppliers outside Europe, Euro IV has been selected.

A3, Manufacture

In the manudacturing module data related to the packaging production of the products has been considered:

Packaging material	ONIK seat (kg/unit)
Plastic	0.03
Recycled cardboard and paper	0.30
Cardboard and paper	0.12
Wood	0.39

Throughout the manufacturing process of the product, there are different typologies of wastes that are produced in Figueras Seating Europe S.L. production site, the waste treatment of those are included in this module, together with the transportation of waste from the production plant, for which specific distances have been assigned to each waste manager.

Distribution stage, A4-A5

A4, Distribution

Impact associated with the distribution transport of the product to the installation location. In 2024, total sales of the ONIK seat were 72% to Nigeria and 28% to Spain.

A5, Installation

Energy and materials required for the installation of the product, including the end-of-life treatment of its packaging, which is assumed to be 100% landfill for all materials. Installing the seat requires four screws, which consume 0.005 kWh in total.

Use stage, B1- B7

The use stage considers all impacts related to the use of the product.

B1, Use – Not relevant. There is not technical and associated administrative activities and actions during the service life related to the operation (use) of the installed product.

B2, Maintenance – Includes lubricants during its service life.

B3, Repair – Not relevant. Any typically not planned corrective, responsive or reactive treatment for the product is considered.

B4, Replacement – Includes the manufacturing of replacement pieces (springs, PU foams).

B5, Refurbishment – Not relevant. A planned programme of maintenance is not applied to this product.

B6, Energy use to operate building integrated technical systems – Not relevant.

B7, Operational water use by building integrated technical systems – Not relevant.

End of life stage, C1-C4

Deinstallation (C1): This includes the use of a screwdriver to remove four screws, which consume 0.005 kWh in total.

Transport to the waste processing site (C2): For the transport of the waste generated during the end-of-life process, a distance of 80 km by lorry to landfill and 130km to incineration plant has been applied as indicated in table 4 of the PCR 2019:14 Construction products, version 2.0.1 (section 5.4.3).

Waste processing (C3): This module includes the processing of product waste fractions from the deconstruction and waste processing of material flows intended for reuse, recycling, and energy recovery. For the 28% of the products that are sold in Spain, according to EUROSTAT (2020) the percentage of steel and plastic recycled in Europe:

Material	Recycling (%)
Steel	99.77
Plastic	71.27

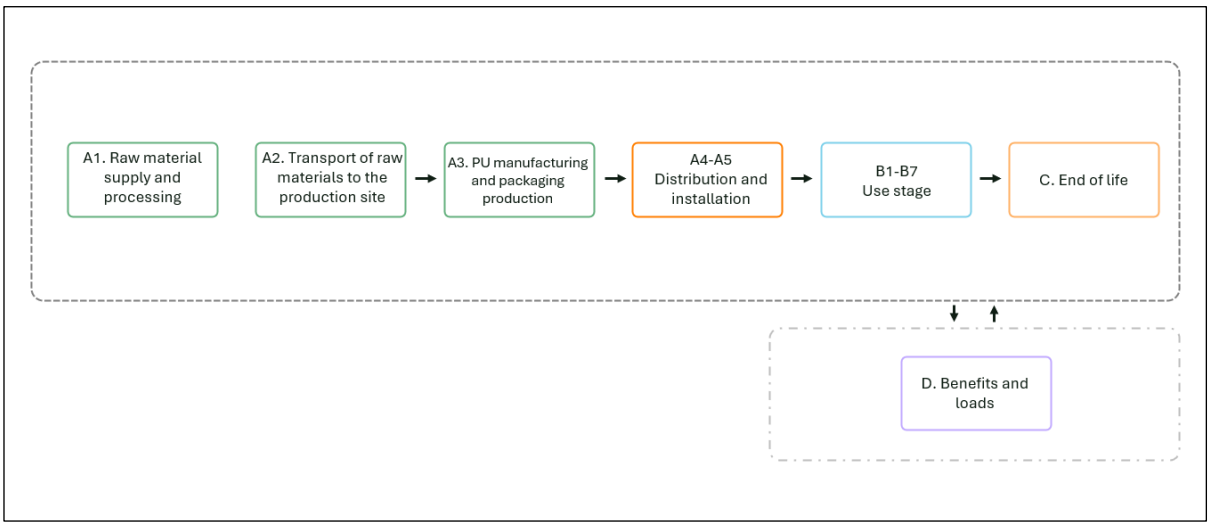
This module includes an additional transport of 80 km to represent the transport from the collection point to the location where the recycling of the material takes place.

Disposal (C4): This module includes the final discharge of waste that has not been destined for recovery or treatment processes. For the 72% of the products that are sold in Nigeria, a 100% landfill waste treatment is assumed. However, for the products that are sold in Spain, according to EUROSTAT (2020) the percentage of steel and plastic incinerated and sent to landfill in Europe:

Material	Landfill (%)	Incineration (%)
Steel	0.07	0.16
Plastic	5.18	23.55

In addition, it includes a default value of diesel consumption (1.6kWh/tonne) for compacting inert construction waste in landfill as indicates the PCR 2019:14 Construction products, version 2.0.1, in table 4.

Process flow diagram:
Process flow diagram of the product system, divided into the life-cycle stages and modules (or other division of the product life cycle, if defined in the PCR), showing the main processes included and the system boundary of the LCA. The diagram shall make it clear when the end-of-waste state is reached for main input flows of reused/recycled materials and recovered energy, and for output flows of reused/recycled materials and recovered energy exiting the end-of-life stage.



Allocation procedures:

- The Spanish electric mix of Ecoinvent 3.11 has been adapted to represent the electric mix source to Figueres in 2023 by its supplier, which was 100% renewable electricity from wind energy generation.
- To allocate the electricity consumption per functional unit, a mass allocation was carried out based on the energy required to produce one polyurethane foam mat.
- To model the end-of-life scenario, the allocation of 72% of products sold to Nigeria and 28% sold to Spain was considered. EUROSTAT data were used to define the waste treatment for the main materials in Europe that make up the seats: steel and plastic.

Data quality requirements: This EPD is based on data collected by Figueras Seating Europe S.L. from the Lliçà d'Amunt (Barcelona, Spain). The EPD covers a product named ONIK with relative data from 2023 for the production plant, and 2024 for the raw materials composition of the seat.
Data quality requirements established by ISO 14025 standard, PCR 2019:14 Construction products, version 2.0.1 and UNE-EN 15804:2012+A2:2020 have been applied. The technological, geographical, and temporal coverage of the primary data has been evaluated through a data quality assessment of generic and specific data defined by the PEF on LCA database development as described in Annex E.2 of the UNE-EN 15804:2012+A2:2020 standard. As a result of the data quality matrix, it is quantified that the gathered data achieves a medium level of quality (3.76 out of 5) in a range of very poor (1), poor (2), medium (3), good (4) and very good (5).

The quality of the data used to calculate this LCA meets the following requirements:

- Used background data are of recognised prestige and acceptance in the technical and scientific fields. In particular, the Ecoinvent v3.11 database, the most recent version existing at the time of the study, is considered to be of preferential use.

- Regionally specific datasets were used to model the energy consumption (electricity or natural gas). For the processes of transport, production of raw materials or end-of-life, datasets were chosen according to their technological and geographical representation of the actual process.

Cut-off rules: In accordance with the provisions of the PCR 2019:14 construction products, version 2.0.1 and the standard UNE-EN 15804:2012+A2:2020, 100% of total inflows (raw materials and energy) and outflows (including wastes) per module have been considered.

The following processes have not been included in the scope of the study:

- Manufacture of equipment used in production, buildings or any other assets.
- Business trips.
- Maintenance activities at the production plants and research and development.
- Transportation of personnel to and within the plants.
- Diffuse particle emissions during the transport and storage of raw materials.
- Infrastructure and capital goods for upstream, core and downstream processes has been excluded.

Modules declared, geographical scope, share of primary data (in GWP-GHG results) and data variation (in GWP-GHG results):

	Product stage			Distribution/ installation stage		Use stage							End-of-life stage				Beyond product life cycle
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
Module	**A1**	**A2**	**A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
Modules declared	x	x	x	x	X	x	x	x	x	x	x	x	x	x	x	x	X
Geography	GLO	GLO	ES	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO
Share of primary data	0.96%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	70%-88%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-

Process	Source type	Source	Reference year	Data category	Share of primary data, of GWP-GHG results for A1-A3
Share of primary data, of GWP-GHG results for A1					**0**
Raw materials	Database	Ecoinvent v3.11	2024	Secondary data	100
Share of primary data, of GWP-GHG results for A2					**0.03**
Transportation	Collected data	FIGUERAS SEATING EUROPE S.L.	2024	Primary data	100
Share of primary data, of GWP-GHG results for A3					**0.93**
Packaging production (A3)	Database	Ecoinvent v3.11	2024	Secondary data	54.07
Waste (A3)	Collected data	FIGUERAS SEATING EUROPE S.L.	2023	Primary data	45.93
Total share of primary data, of GWP-GHG results for A1-A3					**0.96%**

ENVIRONMENTAL PERFORMANCE

LCA results of the product - main environmental performance results

The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks.
The results are declared for the representative product (1 unit of ONIK seat).
The characterization methods of version EF 3.1 of the EN 15804 reference package (2023) adapted for SimaPro substances has been used.
The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3).
Biogenic carbon leaving the product system in module A5 (see Annex 2 of PCR) have been balanced out already in modules A1-A3.

Mandatory impact category indicators according to EN 15804

Results per functional																
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-fossil	kg CO_2 eq.	4.76E+01	2.29E+00	5.42E-02	0	2.81E-05	0	4.62E+00	0	0	0	9.31E-04	1.29E-01	3.48E-01	1.63E+00	-4.21E+00
GWP-biogenic	kg CO_2 eq.	-4.52E-01	1.13E-04	1.59E+00	0	2.11E-08	0	9.72E-03	0	0	0	2.33E-06	4.05E-06	2.26E-02	2.07E-04	-7.69E-04
GWP-luluc	kg CO_2 eq.	3.23E-02	9.48E-05	3.72E-06	0	1.59E-08	0	4.45E-03	0	0	0	1.36E-05	2.03E-06	1.59E-04	3.35E-05	-6.34E-04
GWP-total	kg CO_2 eq.	4.72E+01	2.29E+00	1.64E+00	0	2.82E-05	0	4.63E+00	0	0	0	9.47E-04	1.29E-01	3.71E-01	1.63E+00	-4.22E+00
ODP	kg CFC 11 eq.	4.33E-06	3.48E-08	1.15E-10	0	1.90E-12	0	1.88E-07	0	0	0	1.40E-11	2.92E-09	3.89E-09	3.05E-09	1.41E-07
AP	mol H^+ eq.	1.71E-01	2.48E-02	6.94E-05	0	1.09E-07	0	1.67E-02	0	0	0	3.59E-06	1.60E-04	1.70E-03	7.85E-04	-1.42E-02
EP-freshwater	kg P eq.	2.10E-03	9.17E-06	1.15E-05	0	4.93E-10	0	2.09E-04	0	0	0	1.25E-08	7.95E-08	3.78E-06	6.86E-07	-1.79E-04
EP-marine	kg N eq.	4.34E-02	6.86E-03	4.32E-04	0	1.84E-08	0	4.97E-03	0	0	0	7.57E-07	3.59E-05	7.29E-04	5.07E-04	-3.12E-03

EP-terrestrial	mol N eq.	3.81E-01	7.60E-02	1.98E-04	0	1.98E-07	0	4.21E-02	0	0	0	8.46E-06	3.92E-04	7.80E-03	3.47E-03	-3.58E-02
POCP	kg NMVOC eq.	1.67E-01	2.22E-02	4.10E-04	0	6.07E-07	0	1.87E-02	0	0	0	3.13E-06	3.14E-04	2.46E-03	1.24E-03	-1.75E-02
ADP-minerals& metals*	kg Sb eq.	4.86E-04	1.16E-07	1.67E-10	0	3.30E-11	0	3.03E-05	0	0	0	6.20E-11	3.36E-09	1.83E-07	2.65E-08	-2.86E-05
ADP-fossil*	MJ	8.94E+02	2.97E+01	9.39E-02	0	1.22E-03	0	9.34E+01	0	0	0	3.20E-02	1.71E+00	3.49E+00	2.22E+00	-7.70E+01
WDP*	m^3	1.94E+01	2.57E-02	1.20E-04	0	5.86E-06	0	1.16E+00	0	0	0	9.98E-04	5.60E-04	1.85E-02	-8.06E-01	-1.07E+00

Acronyms: GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

** Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.*

Additional mandatory and voluntary impact category indicators

Results per functional																
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-GHG[1]	kg CO_2 eq.	4.79E+01	2.29E+00	9.39E-01	0	2.82E-05	0	4.63E+00	0	0	0	9.47E-04	1.29E-01	3.71E-01	1.63E+00	-4.22E+00

[1] This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO_2 is set to zero.

Resource use indicators

Results per functional																
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	MJ	7.18E+01	6.16E-02	8.18E-03	0	2.26E-05	0	6.61E+00	0	0	0	9.79E-03	4.27E-03	7.87E-02	1.90E-02	-2.57E+00
PERM	MJ	1.52E+01	0.00E+00	0.00E+00	0	0.00E+00	0	0.00E+00	0	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	8.71E+01	6.16E-02	8.18E-03	0	2.26E-05	0	6.61E+00	0	0	0	9.79E-03	4.27E-03	7.87E-02	1.90E-02	-2.57E+00
PENRE	MJ	2.85E+02	1.29E+00	6.15E-03	0	8.61E-05	0	2.36E+01	0	0	0	2.11E-02	1.17E-02	4.84E-01	1.16E-01	-2.49E+01
PENRM	MJ	1.25E+00	0.00E+00	0.00E+00	0	0.00E+00	0	0.00E+00	0	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	2.87E+02	1.29E+00	6.15E-03	0	8.61E-05	0	2.36E+01	0	0	0	2.11E-02	1.17E-02	4.84E-01	1.16E-01	-2.49E+01
SM	kg	3.05E-01	0.00E+00	0.00E+00	0	0.00E+00	0	0.00E+00	0	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0	0.00E+00	0	0.00E+00	0	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0	0.00E+00	0	0.00E+00	0	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m^3	4.78E-01	1.02E-03	8.44E-06	0	1.75E-07	0	3.83E-02	0	0	0	1.40E-05	3.31E-05	6.13E-04	-1.83E-02	-1.36E-02

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

Waste indicators

Results per functional															
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
Hazardous waste disposed	kg	1.44E-02	1.83E-04	5.36E-07	0	9.17E-09	0	3.33E-03	0	0	0	6.56E-08	1.14E-05	2.25E-05	1.59E-05	-1.22E-03
Non-hazardous waste disposed	kg	5.78E-02	2.59E-04	7.14E-01	0	1.59E-06	0	3.07E-05	0	0	0	3.98E-05	5.65E+00	-2.73E-05	0.00E+00	0.00E+00
Radioactive waste disposed	kg	1.17E-05	4.96E-07	4.26E-06	0	2.07E-09	0	5.50E-08	0	0	0	1.29E-07	1.63E-06	-9.77E-08	0.00E+00	0.00E+00

Output flow indicators

Results per functional																
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0	0.00E+00	0	0.00E+00	0	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling	kg	3.05E-01	0.00E+00	0.00E+00	0	0.00E+00	0	0.00E+00	0	0	0	0.00E+00	0.00E+00	1.96E+00	0.00E+00	0.00E+00
Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0	0.00E+00	0	0.00E+00	0	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Exported energy, electricity	MJ	0.00E+00	0.00E+00	0.00E+00	0	0.00E+00	0	0.00E+00	0	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal	MJ	0.00E+00	0.00E+00	0.00E+00	0	0.00E+00	0	0.00E+00	0	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Additional LCA results (other environmental performance results) of the product

Since the declared end-of-life scenario of the product is a combination of recycling, incineration and landfill. The corresponding 100% results scenarios are reported for modules C1-C4 and D.

Results for modules per functional unit							
Indicator	Unit	100% recycling		100% landfill		100% incineration	
		C1-C4	D	C1-C4	D	C1-C4	D
GWP-fossil	kg CO_2 eq.	1.55E+00	-1.69E+01	9.48E-01	0.00E+00	1.73E+01	0.00E+00
GWP-biogenic	kg CO_2 eq.	1.13E-01	-3.07E-03	2.05E-04	0.00E+00	1.07E-03	0.00E+00
GWP-luluc	kg CO_2 eq.	7.88E-04	-2.80E-03	5.46E-05	0.00E+00	1.13E-04	0.00E+00
GWP-total	kg CO_2 eq.	1.67E+00	-1.70E+01	9.48E-01	0.00E+00	1.73E+01	0.00E+00
ODP	kg CFC 11 eq.	1.64E-08	7.21E-07	9.36E-09	0.00E+00	9.95E-09	0.00E+00
AP	mol H^+ eq.	7.05E-03	-5.42E-02	1.06E-03	0.00E+00	4.28E-03	0.00E+00
EP-freshwater	kg P eq.	1.84E-05	-6.55E-04	8.00E-07	0.00E+00	3.68E-06	0.00E+00
EP-marine	kg N eq.	2.97E-03	-1.21E-02	6.03E-04	0.00E+00	2.01E-03	0.00E+00
EP-terrestrial	mol N eq.	3.16E-02	-1.38E-01	3.88E-03	0.00E+00	2.08E-02	0.00E+00
POCP	kg NMVOC eq.	1.01E-02	-7.34E-02	1.91E-03	0.00E+00	5.55E-03	0.00E+00
ADP-minerals&metals*	kg Sb eq.	9.11E-07	-1.02E-04	2.41E-08	0.00E+00	2.12E-07	0.00E+00
ADP-fossil*	MJ	1.50E+01	-3.47E+02	6.11E+00	0.00E+00	5.67E+00	0.00E+00
WDP*	m^3	9.11E-02	-4.80E+00	-1.14E+00	0.00E+00	5.40E-01	0.00E+00

The following table presents the variation of the representative product compared to the rest of the family products. The percentage variation is calculated through the difference in impact of the seats compared to the representative product, divided by their average.

LCA result of one declared unit product (A-C)	Unit	ONIK (representative product)	LUMIERE MDF	LUMIERE PP	TOP
GWP-fossil	kg CO2 eq.	5.67E+01	80%	76%	57%
GWP-biogenic	kg CO2 eq.	1.17E+00	172%	170%	176%
GWP-luluc	kg CO2 eq.	3.71E-02	122%	119%	126%
GWP-total	kg CO2 eq.	5.79E+01	88%	83%	70%
ODP	kg CFC 11 eq.	4.56E-06	89%	89%	62%
AP	mol H+ eq.	2.16E-01	88%	75%	53%
EP-freshwater	kg P eq.	2.33E-03	94%	92%	72%
EP- marine	kg N eq.	5.69E-02	92%	78%	64%
EP-terrestrial	mol N eq.	5.11E-01	96%	77%	60%
POCP	kg NMVOC eq.	2.12E-01	89%	77%	63%
ADP-minerals&metals*	kg Sb eq.	5.16E-04	-30%	-30%	-77%
ADP-fossil*	kg CO2 eq.	1.02E+03	73%	71%	59%
WDP*	kg CO2 eq.	1.98E+01	75%	64%	50%

ABBREVIATIONS

Abbreviation	Definition
General Abbreviations	
EN	European Norm (Standard)
GPI	General Programme Instructions
ISO	International Organization for Standardization
CEN	European Committee for Standardization
CLC	Co-location centre
CPC	Central product classification
GHS	Globally harmonized system of classification and labelling of chemicals
GRI	Global Reporting Initiative
SVHC	Substances of Very High Concern
ND	Not Declared
PCR	Product Category Rules
C-PCR	Complementary Product Category Rules
LCI	Life Cycle Inventory
LCA	Life Cycle Assessment
UN	United nations
UNE	Asociación Española de Normalización

REFERENCES

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- Treatment of waste by waste category, hazardousness and waste management operations, EUROSTAT, 2020.
- UNE-EN ISO 14040:2006 – Environmental management – Life Cycle Assessment – Principles and framework.
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- UNIPLAC® - Plasterboard Liner Environmental Product Declaration from Moritz J. Weig GmbH & Co. KG, published on 2023-02-21, reviewed on 2025-02-25 and valid until 2028-02-09.

VERSION HISTORY

Original Version of the EPD, 20YY-MM-DD

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