Environmental Product Declaration

In accordance with ISO 14025 and EN 15804:2012+A2:2019 for:

INTERIOR PAINTS

from

JUNO

PAINT MANUFACTURERS SINCE 1927

Programme: The International EPD® System, www.environdec.com
Programme operator: EPD International AB
EPD registration number: S-P-01852
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An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com

Content

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
E-mail:	info@environdec.com

CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product category rules (PCR): PCR 2019:14 Construction products (EN 15804:A2) Version 1.0
PCR review was conducted by: The Technical Committee of the International EPD® System. Chair: Massimo Marino. Contact via info@environdec.com
Independent third-party verification of the declaration and data, according to ISO 14025:2006: ☐ EPD process certification ☒ EPD verification
Third party verifier: Tecnalia R&I Certificación *In case of accredited certification bodies:* Accredited by: *ENAC* (accreditation no. 125/C-PR283). *Name of the verifier: Patxi Hernández*
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 from different programs may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804. For further information about comparability, see EN 15804 and ISO 14025.

Company information

Owner of the EPD: Industrias Juno, S.A.

Contact: Luis Gil. Email: lgil@juno.es. Telephone: 0034944670062

Description of the organisation:
JUNO offers solutions to the professional and final user, with products that cover the entire range of decorative, professional and industrial paint, tools and machinery necessary for its application or articles for rehabilitation and decoration.
The JUNO Group consists of 3 factories and an extensive network of stores, warehouses and own offices that meet the needs of the professional painter and the domestic consumer.
JUNO is a reference for professional painters and is a leader in the demanding sector of paints and treatments for façades, and in ecological and standardized paints.
JUNO is a brand that prioritizes and maintains the quality of its products, defends its importance as a differentiating criterion and argues it as a saving in any painting process.

More information: www.juno.es

Product-related or management system-related certifications: Industrias Juno S.A. has the certificates of environmental management ISO 14001 and ISO 9001 quality, for the design, development, production, marketing and after-sales service of paints, enamels, dyes, varnishes and thinners to guarantee customers, employees and suppliers that the company works under regulated processes that reduce the environmental impact of their activity.

Name and location of production site(s): Barrio Saconi 10, 48950 Erandio, Basque Country, Spain.

Product information

JUNO is a leading manufacturer and supplier of high quality decorative paints for interior, exterior and wood as well as corrosion protection and passive fire protection.
JUNO´s indoor and outdoor water-based decorative products for professional painters offer an outstanding combination of product quality and performance. All manufactured products are high quality paints, characterised by their extraordinary opacity and great whiteness, from the interior emulsion paints to the high build masonry coatings.

Product name: this EPD® includes the next interior paint references:

- Junoprof
- Annex I: B4, FF1 and J-25 since their impact differs less than +/-10%.
- Annex II: B5 and CASTOR N since their impact differs less than +/-10%.
- Annex III: B10, FF2, J28, N5 and B7 since their impact differs less than +/-10%.
- Annex IV: G200, LISOMAX and B12 since their impact differs less than +/-10%.
- Annex V: JUNO RESULTA, J35, ALTA CUBRICIÓN and CASTOR PICAR since their impact differs less than +/-10%.
- Annex VI: OFITECH.
- Annex VII: ANTICONDENSACIÓN

Product identification: this EPD® covers all ranges of JUNO interior paints indicated. The following is a brief identification of Junoprof product:

PARAMETER	VALUE
Density	1,47 kg/L ± 0,05 (UNE-ISO 2811-1)
Performance	10-12 m²/L/layer of paint (UNE 48282)
Finish	Matte
Colour	Junomatic Decorative System
Viscosity	Minimum 80 P S/FR 1007 (UNE-EN-ISO 3219)
Drying time	30 minutes
Diluent	Water
Point of inflammation	Not inflammable
VOC content	Maximum 30 g/L (theoretical content)
Products used during istallation	Brush, roller or spray gun

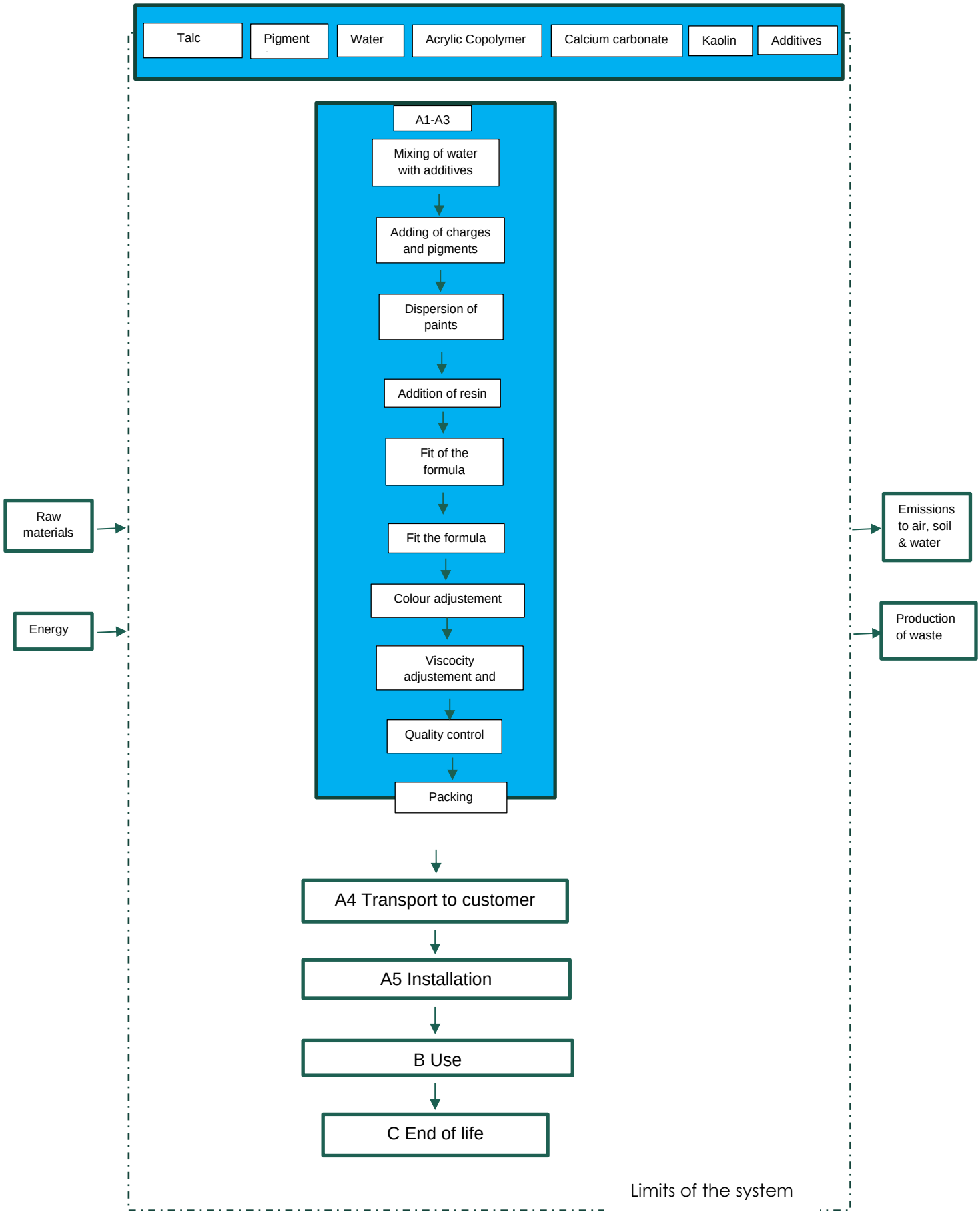
Product description: this EPD® covers all ranges of JUNO interior paints indicated. The following is a brief description of the product Junoprof, as well as its main characteristics: Junoprof is a plastic paint calibrated with the Junomatic Tintometric System, which has been added with preservatives that prevent the formation of mold on the surfaces where it is applied. The product is formulated with acrylic copolymers dispersed in aqueous medium that provide a resistant coating with good washability, and is ideal for professional use due to its good performance, breathability, fire resistance, as well as the wide range of colours that allows in its execution.
Fundamentally, the use of the product is aimed at the construction and decoration sector and its application is recommended on plaster, plasterboard, concrete and cement surfaces. In addition, Junoprof provides protection and allows the decoration of rooms, bathrooms, as well as other places where a quality matte finish is required, providing stable and durable colours.

UN CPC code: 3511 Paints and varnishes (including enamels and lacquers)

LCA information

Declared unit: extraction of raw materials, transportation, manufacturing, transportation to the customer, installation, use, transportation to the manager and end of life of the amount of product needed to cover 1 m² of surface. For Junoprof this amount corresponds to 0,17 kg of paint (0.12L) applying two layers.
Reference service life: 10 years (as declared by the manufacturer)
Time representativeness: data from factory (primary data) and electricity mix from 2018.
Database(s) and LCA software used: Ecoinvent 3.4 and Simapro 8.5. The impact models used are those indicated in EN 15804:2012+A:2:2019.
Description of system boundaries: Cradle to grave and Module D (A+B+C+D)

System diagram:



More information:

- More information at www.juno.es.
- Technical support for the implementation of the EPD: Marcel Gómez Consultoría Ambiental.
- The electricity mix used in the manufacturing plant is 100% renewable certified. The energy sources in the electricity mix are the next: hydro (37%), wind (51%) and solar (12%)[1]. 1 KWh=4,49E-02 Kg CO_2-eq.
- The modularity principle, as well as the polluter-payer principle have been followed.
- Cut off rules: according to EN 15804 a minimum of 95% of total inflows (mass and energy) per module are included and 100% of the inflows are accounted for.
- Allocation procedure: where necessary an allocation based in mass has been used.
- The next processes have not been included since its impact is not significant:
    - Environmental impact from infrastructure, construction, production equipment, and tools that are not directly consumed in the production process.
    - Personnel-related impacts, such as transportation to and from work.

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

	Product stage		Construction process stage			Use stage							End of life stage				Resource recovery stage
	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	Europe	Spain and Portugal	Spain and Portugal	Spain and Portugal	Spain and Portugal	Spain and Portugal	Spain and Portugal	Spain and Portugal	Spain and Portugal	Spain and Portugal	Spain and Portugal	Spain and Portugal	Spain and Portugal	Spain and Portugal	Spain and Portugal	Spain and Portugal	Spain and Portugal
Specific data	Yes					-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	Less than 10% for every group of products					-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	Manufactured in one site					-	-	-	-	-	-	-	-	-	-	-	-

[1] The renewable electricity mix corresponds to the electricity production mix in Spain in 2018 (source: Red Eléctrica Española). Then the ratios have been projected for a 100% renewable electricity mix.

- **A1-A3 Product stage**
  - **A1 Raw materials supply:** this module takes into account the extraction and processing of raw materials and the energy that is produced prior to the manufacturing process under study.
  - **A2 Transport:** this module includes the transport of the different raw materials from the manufacturer to the factory. The distance and type of concrete truck for each raw material has been introduced.
  - **A3 Manufacturing:** this module includes the consumption of energy and packaging materials used during the manufacturing process. At the same time, the factory emissions not originated in the combustion of fossil fuels are analyzed, as well as the transport and management of the factory-produced waste. The manufacture of paints consists mainly of a dispersion of different components. Stirrers are used to carry out this process that help to disperse, disintegrate and mix the paint components. In a first phase, the solvent (in this case water), the additives, pigments and fillers are added until a homogeneous mixture is obtained. To determine if an adequate degree of dispersion has been reached, a fineness control is made up to the desired microns, which will determine the dispersion time. Once the desired degree of fineness has been achieved, the completion with the emulsion or binder is carried out and the characteristics of the final product in quality control are verified. Once the paint has passed all the controls, it is packed.

- **A4-A5 Construction process stage**
  - **A4 Transport**

PARAMETER	VALUE/DESCRIPTION
Fuel type and consumption of vehicle or vehicle type used for transport e.g. long distance truck, boat, etc	Truck of more than 32 tn. Fuel consumption: 31,1 L/100 Km Ship transport for Canarian and Balearic Islands
Distance	Truck: 374 Km Ship: 377 km
Capacity utilisation (including empty returns)	% assumed in Ecoinvent
Bulk density of transported products*	1,47 kg/l (for Junoprof)
Volume capacity utilisation factor	1

- **A5 Construction/Installation**

PARAMETER	VALUE/DESCRIPTION
Auxiliary materials for installation	Brush, roll or spray gun
Use of water	2,65E-02 l/FU (for Junoprof)
Use of other resources	No other resource consumption
Quantitative description of the type of energy (regional mix) and the consumption during the installation process	No energy consumption
Wastage of materials on the building site before waste processing, generated by the product's installation (specified by type)	Product losses (2%) Pallet: 1,08E-02 kg/FU Polyethylene and steel packaging (15L): 9,97E-03kg/FU Polyethylene film: 3,92E-05 kg/FU
Output materials as results of waste processing at the building site e.g. of collection for recycling, for energy recovering, disposal (specified by route)	Product losses are 100% landfilled Packaging waste is 100% recycled

- **B Use stage:** the product does not require any use (B1), maintenance (B2), repair (B3), replacement (B4), refurbishment (B5), operational energy use (B6) or operational water use (B7) during its Reference Service Life.
- **C End of life stage**
  - **C1 Deconstruction/demolition:** the de-construction and/or dismantling of paints take part of the demolition of the entire building. As a consequence, the environmental impact is assumed to be very small and has been neglected.
  - **C2 Transport to waste processing:** the model use for the transportation (see A4, transportation to the building site) is applied.
  - **C3 Waste processing for reuse, recovery and/or recycling:** the product is considered to be landfilled without reuse, recovery or recycling.
  - **C4 Disposal:** the product is 100% landfilled.

PARAMETER	VALUE/DESCRIPTION
Collection process specified by type	The product is collected mixed with construction waste
Recovery system specified by type	There is no recovery, recycling or reuse
Disposal specified by type	100% landfill
Assumptions for scenario development (e.g. transportation)	16-32 tn truck. Fuel consumption: 25 l/100 Km Distance: 50 km

- **D Reuse-Recovery-Recycling potential**

Module D calculates the potential environmental benefits of the recycling or reuse of materials. This product has not considerable benefits due to recycling or/and reuse.

Content information

This EPD® covers all ranges of JUNO interior paints indicated. The following is a brief identification of Junoprof content information:

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Water	15%-35%	0%	0%
Acrylic copolymers	15%-35%	0%	0%
Calcium carbonate	10%-30%	0%	0%
Pigments	5%-15%	0%	0%
Talcum	1%-10%	0%	0%
Kaolin	1%-10%	0%	0%
Additives	1%-10%	0%	0%
TOTAL	0,245 Kg/m^2 (two layers)	0%	0%
Packaging materials	**Weight, kg**	**Weight-% (versus the product)**	
Polyethylene	8,67E-03 Kg/m^2	4%	
Steel	5,67E-04 Kg/m^2	<1%	
TOTAL	9,24E-03 Kg/m^2	4%	

During the life cycle of the product any hazardous substance listed in the "Candidate List of Substances of Very High Concern (SVHC) for authorization" has been used in a percentage higher than 0.1% of the weight of the product.

Environmental Information

Potential environmental impact – mandatory indicators according to EN 15804

The estimated impact results are only relative statements which do not indicate the end points of the impact categories, exceeding thresholds values, safety margins or risks.

Results per declared unit											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B**	**C1**	**C2**	**C3**	**C4**	**Total**	**D**
GWP-total	kg CO_2 eq.	4.29E-01	1.67E-02	9.17E-03	0	0	2.13E-03	0	1.15E-03	4.58E-01	0
GWP-fossil	kg CO_2 eq.	4.14E-01	1.66E-02	8.86E-03	0	0	2.11E-03	0	1.14E-03	4.43E-01	0
GWP-biogenic	kg CO_2 eq.	1,49E-02	1,20E-04	3,04E-04	0	0	1,44E-05	0	1,65E-05	1,54E-02	0
GWP-luluc	kg CO_2 eq.	3,00E-04	5,89E-06	6,19E-06	0	0	6,08E-07	0	2,02E-07	3,12E-04	0
ODP	kg CFC 11 eq.	3,90E-08	3,03E-09	8,89E-10	0	0	3,92E-10	0	4,51E-10	4,38E-08	0
AP	mol H^+ eq.	1.97E-03	6.10E-05	4.17E-05	0	0	6.20E-06	0	1.12E-05	2.09E-03	0
EP-freshwater	kg PO_4^{3-} eq.	1.65E-05	1.65E-05	3.38E-07	0	0	3.25E-08	0	1.48E-08	1.70E-05	0
EP-marine	kg N eq.	3.28E-04	1.23E-05	7.02E-06	0	0	1.16E-06	0	4.08E-06	3.53E-04	0
EP-terrestrial	mol N eq.	3.91E-03	1.39E-04	8.34E-05	0	0	1.32E-05	0	4.55E-05	4.19E-03	0
POCP	kg NMVOC eq.	1.39E-03	4.55E-05	7.69E-05	0	0	5.02E-06	0	1.29E-05	6.27E-03	0
ADP-minerals&metals*	kg Sb eq.	8,76E-07	1,97E-08	1,86E-08	0	0	6,55E-09	0	1,22E-09	9,23E-07	0
ADP-fossil*	MJ	6,21E+00	2,50E-01	1,33E-01	0	0	3,18E-02	0	3,69E-02	6,66E+00	0
WDP	m^3	1.99E-01	1.00E-03	4.59E-03	0	0	1.68E-04	0	1.68E-04	2.05E-01	0
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 of these results are high or as there is limited experience with the indicator.*

Potential environmental impact – additional mandatory and voluntary indicators

Results per declared unit											
Indicator	Unit	A1-A3	A4	A5	B	C1	C2	C3	C4	Total	D
GWP-GHG[2]	kg CO_2 eq.	4.14E-01	1.66E-02	8.86E-03	0	0	2.11E-03	0	1.14E-03	1.14E-03	0

Use of resources

Results per declared unit											
Indicator	Unit	A1-A3	A4	A5	B	C1	C2	C3	C4	Total	D
PERE	MJ	6.63E-01	5.18E-03	1.34E-02	0	0	4.80E-04	0	4.94E-04	6.82E-01	0
PERM	MJ	0	0	0	0	0	0	0	0	0	0
PERT	MJ	6.63E-01	5.18E-03	1.34E-02	0	0	4.80E-04	0	4.94E-04	6.82E-01	0
PENRE	MJ	7.22E+00	2.75E-01	1.54E-01	0	0	3.46E-02	0	4.01E-02	7.72E+00	0
PENRM	MJ.	0	0	0	0	0	0	0	0	0	0
PENRT	MJ	7.22E+00	2.75E-01	1.54E-01	0	0	3.46E-02	0	4.01E-02	7.72E+00	0
SM	kg	0	0	0	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0	0	0
FW	m^3	2.86E-02	5.00E-05	6.02E-04	0	0	6.16E-06	0	4.25E-05	2.93E-02	0
Acronyms	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 production and output flows

Waste production

Results per declared unit											
Indicator	Unit	A1-A3	A4	A5	B	C1	C2	C3	C4	Total	D
Hazardous waste disposed	kg	4.88E-05	1.41E-07	9.81E-07	0	0	1.92E-08	0	1.29E-08	4.99E-05	0
Non-hazardous waste disposed	kg	1.02E-01	1.32E-02	7.75E-03	0	0	1.57E-03	0	2.64E-01	3.89E-01	0
Radioactive waste disposed	kg	1.32E-05	1.76E-06	3.28E-07	0	0	2.24E-07	0	2.58E-07	1.58E-05	0

[2] The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Output flows

Results per declared unit										
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B**	**C1**	**C2**	**C3**	**C4**	**Total**	**D**
Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
Material for recycling	kg	1.2E-03	0	2.10E-02	0	0	0	0	0	0	0
Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
Exported energy, electricity	kg	0	0	0	0	0	0	0	0	0	0
Exported energy, thermal	kg	0	0	0	0	0	0	0	0	0	0

Information on biogenic carbon content

Results per functional or declared unit		
BIOGENIC CARBON CONTENT	**Unit**	**QUANTITY**
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO_2.

Additional information

No additional information is provided.

Information related to Sector EPD

This is an individual EPD®.

Differences versus previous versions

This is the first version of the EPD®.

References

- General Programme Instruction of the International EPD® System. Version 3.01.
- ISO 14020:2000 Environmental labels and declarations-General principles
- ISO 14025:2010 Environmental labels and declarations-Type III Environmental Declarations-Principles and procedures
- ISO 14040:2006 Environmental management-Life Cycle Assessment-Principles and framework
- ISO 14044:2006 Environmental management-Life Cycle Assessment-Requirements and guidelines
- PCR 2019:14 Construction products (EN 15804:A2) version 1.0
- EN 15804:2012+A2:2019 Sustainability of construction works-Environmental Product Declarations-Core rules for the product category of construction products

Annex 1

These results are valid for the next products since their impact differs less than 10%: **B-4** (0,181 l/m²), **FF-1** (0,180 l/m²) and **J-25** (0,180 l/m²).

Potential environmental impact – mandatory indicators according to EN 15804

Results per declared unit											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B**	**C1**	**C2**	**C3**	**C4**	**Total**	**D**
GWP-total	kg CO_2 eq.	2.16E-01	1.96E-02	4.96E-03	0	0	2.27E-03	0	1.23E-03	2.44E-01	0
GWP-fossil	kg CO_2 eq.	2.05E-01	1.94E-02	4.75E-03	0	0	2.26E-03	0	1.21E-03	2.33E-01	0
GWP-biogenic	kg CO_2 eq.	1.01E-02	1.43E-04	2.09E-04	0	0	1.53E-05	0	1.76E-05	1.05E-02	0
GWP-luluc	kg CO_2 eq.	1.94E-04	6.68E-06	4.09E-06	0	0	6.49E-07	0	2.16E-07	2.05E-04	0
ODP	kg CFC 11 eq.	2.02E-08	3.6E-09	5.29E-10	0	0	4.19E-10	0	4.81E-10	2.53E-08	0
AP	mol H^+ eq.	1.05E-03	9.12E-05	2.39E-05	0	0	6.62E-06	0	1.20E-05	1.19E-03	0
EP-freshwater	kg PO_4^{3-} eq.	1.00E-05	1.94E-07	2.09E-07	0	0	3.47E-08	0	1.58E-08	1.05E-05	0
EP-marine	kg N eq.	1.81E-04	1.83E-05	4.20E-06	0	0	1.23E-06	0	4.36E-06	2.09E-04	0
EP-terrestrial	mol N eq.	2.15E-03	2.07E-04	4.98E-05	0	0	1.41E-05	0	4.86E-05	2.47E-03	0
POCP	kg NMVOC eq.	7.35E-04	6.57E-05	1.29E-04	0	0	5.36E-06	0	1.38E-05	5.68E-03	0
ADP-minerals&metals*	kg Sb eq.	9.17E-07	2.46E-08	1.96E-08	0	0	7.00E-09	0	1.30E-09	9.69E-07	0
ADP-fossil*	MJ	3.16E+00	2.95E-01	7.33E-02	0	0	3.40E-02	0	3.94E-02	3.60E+00	0
WDP	m^3	1.45E-01	1.32E-03	3.57E-03	0	0	1.79E-04	0	1.56E-04	1.51E-01	0
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 of these results are high or as there is limited experience with the indicator.*

Potential environmental impact – additional mandatory and voluntary indicators

Results per declared unit											
Indicator	Unit	A1-A3	A4	A5	B	C1	C2	C3	C4	Total	D
GWP-GHG[3]	kg CO_2 eq.	2.05E-01	1.94E-02	4.75E-03	0	0	2.26E-03	0	1.21E-03	2.33E-01	0

Use of resources

Results per declared unit											
Indicator	Unit	A1-A3	A4	A5	B	C1	C2	C3	C4	Total	D
PERE	MJ	5.30E-01	6.05E-03	1.08E-02	0	0	5.13E-04	0	5.28E-04	5.48E-01	0
PERM	MJ	0	0	0	0	0	0	0	0	0	0
PERT	MJ	5.30E-01	6.05E-03	1.08E-02	0	0	5.13E-04	0	5.28E-04	5.48E-01	0
PENRE	MJ	3.81E+00	3.25E-01	8.74E-02	0	0	3.69E-02	0	4.28E-02	4.30E+00	0
PENRM	MJ.	0	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.81E+00	3.25E-01	8.74E-02	0	0	3.69E-02	0	4.28E-02	4.30E+00	0
SM	kg	0	0	0	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0	0	0
FW	m^3	6.03E-02	6.02E-05	1.24E-03	0	0	6.58E-06	0	4.54E-05	6.17E-02	0
Acronyms	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 production and output flows

Waste production

Results per declared unit											
Indicator	Unit	A1-A3	A4	A5	B	C1	C2	C3	C4	Total	D
Hazardous waste disposed	kg	4.98E-05	1.65E-07	1.00E-06	0	0	2.05E-08	0	1.38E-08	5.10E-05	0
Non-hazardous waste disposed	kg	6.91E-02	1.66E-02	7.53E-03	0	0	1.68E-03	0	2.82E-01	3.77E-01	0
Radioactive waste disposed	kg	8.97E-06	2.09E-06	2.51E-07	0	0	2.39E-07	0	2.76E-07	1.18E-05	0

[3] The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Output flows

Results per declared unit										
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B**	**C1**	**C2**	**C3**	**C4**	**Total**	**D**
Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
Material for recycling	kg	1,17E-03	0	2,1E-02	0	0	0	0	0	0	0
Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
Exported energy, electricity	kg	0	0	0	0	0	0	0	0	0	0
Exported energy, thermal	kg	0	0	0	0	0	0	0	0	0	0

Information on biogenic carbon content

Results per functional or declared unit		
BIOGENIC CARBON CONTENT	**Unit**	**QUANTITY**
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO_2.

Annex 2

These results are valid for the next products since their impact differs less than 10%: **B-5** (0,18 l/m2) and **Castor N** (0,18 l/m2).

Potential environmental impact – mandatory indicators according to EN 15804

Results per declared unit											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B**	**C1**	**C2**	**C3**	**C4**	**Total**	**D**
GWP-total	kg CO_2 eq.	2.54E-01	1.61E-02	5.43E-03	0	0	2.17E-03	0	1.17E-03	2.79E-01	0
GWP-fossil	kg CO_2 eq.	2.43E-01	1.60E-02	4.75E-03	0	0	2.26E-03	0	1.21E-03	2.68E-01	0
GWP-biogenic	kg CO_2 eq.	1.05E-02	1.15E-04	2.15E-04	0	0	1.48E-05	0	1.69E-05	1.08E-02	0
GWP-luluc	kg CO_2 eq.	2.29E-04	5.78E-06	4.79E-06	0	0	6.24E-07	0	2.07E-07	2.41E-04	0
ODP	kg CFC 11 eq.	1.94E-08	2.91E-09	4.95E-10	0	0	4.03E-10	0	4.63E-10	2.36E-08	0
AP	mol H^+ eq.	1.17E-03	8.92E-05	2.61E-05	0	0	6.37E-06	0	1.15E-05	1.30E-03	0
EP-freshwater	kg PO_4^{3-} eq.	9.35E-06	1.57E-07	1.95E-07	0	0	3.34E-08	0	1.52E-08	9.75E-06	0
EP-marine	kg N eq.	2.00E-04	1.78E-05	4.57E-06	0	0	1.19E-06	0	4.19E-06	2.28E-04	0
EP-terrestrial	mol N eq.	2.33E-03	2.01E-04	5.32E-05	0	0	1.36E-05	0	4.67E-05	2.65E-03	0
POCP	kg NMVOC eq.	8.33E-04	6.12E-05	5.66E-05	0	0	5.16E-06	0	1.33E-05	5.70E-03	0
ADP-minerals&metals*	kg Sb eq.	5.52E-07	1.84E-08	1.21E-08	0	0	6.73E-09	0	1.25E-09	5.90E-07	0
ADP-fossil*	MJ	3.73E+00	2.40E-01	8.34E-02	0	0	3.27E-02	0	3.79E-02	4.12E+00	0
WDP	m^3	1.56E-01	1.05E-03	3.75E-03	0	0	1.72E-04	0	1.50E-04	1.61E-01	0
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 of these results are high or as there is limited experience with the indicator.*

Potential environmental impact – additional mandatory and voluntary indicators

Results per declared unit											
Indicator	Unit	A1-A3	A4	A5	B	C1	C2	C3	C4	Total	D
GWP-GHG[4]	kg CO_2 eq.	2.43E-01	1.60E-02	4.75E-03	0	0	2.26E-03	0	1.21E-03	2.68E-01	0

Use of resources

Results per declared unit											
Indicator	Unit	A1-A3	A4	A5	B	C1	C2	C3	C4	Total	D
PERE	MJ	5.54E-01	5.01E-03	1.13E-02	0	0	4.93E-04	0	5.08E-04	5.71E-01	0
PERM	MJ	0	0	0	0	0	0	0	0	0	0
PERT	MJ	5.54E-01	5.01E-03	1.13E-02	0	0	4.93E-04	0	5.08E-04	5.71E-01	0
PENRE	MJ	4.47E+00	2.64E-01	9.92E-02	0	0	3.55E-02	0	4.12E-02	4.91E+00	0
PENRM	MJ.	0	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.47E+00	2.64E-01	9.92E-02	0	0	3.55E-02	0	4.12E-02	4.91E+00	0
SM	kg	0	0	0	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0	0	0
FW	m^3	5.40E-02	4.75E-05	1.11E-03	0	0	6.33E-06	0	4.54E-05	5.52E-02	0
Acronyms	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 production and output flows

Waste production

Results per declared unit											
Indicator	Unit	A1-A3	A4	A5	B	C1	C2	C3	C4	Total	D
Hazardous waste disposed	kg	4.78E-05	1.36E-07	9.61E-07	0	0	1.97E-08	0	1.33E-08	4.89E-05	0
Non-hazardous waste disposed	kg	6.22E-02	1.22E-02	7.08E-03	0	0	1.62E-03	0	2.72E-01	3.55E-01	0
Radioactive waste disposed	kg	7.81E-06	1.69E-06	2.19E-07	0	0	2.30E-07	0	2.65E-07	1.02E-05	0

[4] The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Output flows

Results per declared unit										
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B**	**C1**	**C2**	**C3**	**C4**	**Total**	**D**
Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
Material for recycling	kg	1,13E-03	0	2,0E-02	0	0	0	0	0	0	0
Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
Exported energy, electricity	kg	0	0	0	0	0	0	0	0	0	0
Exported energy, thermal	kg	0	0	0	0	0	0	0	0	0	0

Information on biogenic carbon content

Results per functional or declared unit		
BIOGENIC CARBON CONTENT	**Unit**	**QUANTITY**
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO_2

Annex 3

These results are valid for the next products since their impact differs less than 10%: **B-10** (0,15 l/m2), **FF-2** (0,18 l/m2), **J-28** (0,18 l/m2), **N-5** (0,18 l/m2) and **B-7** (0,18 l/m2).

Potential environmental impact – mandatory indicators according to EN 15804

Results per declared unit											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B**	**C1**	**C2**	**C3**	**C4**	**Total**	**D**
GWP-total	kg CO_2 eq.	2.82E-01	1.84E-02	6.26E-03	0	0	2.27E-03	0	1.23E-03	3.10E-01	**0**
GWP-fossil	kg CO_2 eq.	2.69E-01	1.83E-02	1.83E-02	0	0	2.26E-03	0	1.21E-03	2.96E-01	**0**
GWP-biogenic	kg CO_2 eq.	1.30E-02	1.34E-04	2.65E-04	0	0	1.53E-05	0	1.76E-05	1.34E-02	**0**
GWP-luluc	kg CO_2 eq.	2.34E-04	6.39E-06	4.89E-06	0	0	6.49E-07	0	2.16E-07	2.46E-04	**0**
ODP	kg CFC 11 eq.	2.72E-08	3.37E-09	6.63E-10	0	0	4.19E-10	0	4.81E-10	3.22E-08	**0**
AP	mol H^+ eq.	1.41E-03	1.34E-04	3.19E-05	0	0	6.62E-06	0	1.20E-05	1.59E-03	**0**
EP-freshwater	kg PO_4^{3-} eq.	1.37E-05	2.11E-07	2.83E-07	0	0	3.47E-08	0	1.58E-08	1.43E-05	**0**
EP-marine	kg N eq.	2.35E-04	2.66E-05	5.46E-06	0	0	1.23E-06	0	4.36E-06	2.73E-04	**0**
EP-terrestrial	mol N eq.	2.85E-03	3.01E-04	6.55E-05	0	0	1.41E-05	0	4.86E-05	3.28E-03	**0**
POCP	kg NMVOC eq.	9.73E-04	8.95E-05	3.31E-05	0	0	5.36E-06	0	1.38E-05	5.85E-03	**0**
ADP-minerals&metals*	kg Sb eq.	1.06E-06	2.25E-08	2.24E-08	0	0	7.00E-09	0	1.30E-09	1.12E-06	**0**
ADP-fossil*	MJ	3.94E+00	2.77E-01	8.86E-02	0	0	3.40E-02	0	3.94E-02	4.38E+00	**0**
WDP	m^3	1.67E-01	1.38E-03	4.01E-03	0	0	1.79E-04	0	1.56E-04	1.73E-01	**0**
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 of these results are high or as there is limited experience with the indicator.*

Potential environmental impact – additional mandatory and voluntary indicators

Results per declared unit											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B**	**C1**	**C2**	**C3**	**C4**	**Total**	**D**
GWP-GHG[5]	kg CO_2 eq.	2.69E-01	1.83E-02	1.83E-02	0	0	2.26E-03	0	1.21E-03	2.96E-01	**0**

Use of resources

Results per declared unit											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B**	**C1**	**C2**	**C3**	**C4**	**Total**	**D**
PERE	MJ	6.00E-01	5.71E-03	1.22E-02	0	0	5.13E-04	0	5.28E-04	6.19E-01	**0**
PERM	MJ	0	0	0	0	0	0	0	0	0	**0**
PERT	MJ	6.00E-01	5.71E-03	1.22E-02	0	0	5.13E-04	0	5.28E-04	6.19E-01	**0**
PENRE	MJ	4.79E+00	3.05E-01	1.07E-01	0	0	3.69E-02	0	4.28E-02	5.28E+00	**0**
PENRM	MJ.	0	0	0	0	0	0	0	0	0	**0**
PENRT	MJ	4.79E+00	3.05E-01	1.07E-01	0	0	3.69E-02	0	4.28E-02	5.28E+00	**0**
SM	kg	0	0	0	0	0	0	0	0	0	**0**
RSF	MJ	0	0	0	0	0	0	0	0	0	**0**
NRSF	MJ	0	0	0	0	0	0	0	0	0	**0**
FW	m^3	5.83E-02	5.60E-05	1.20E-03	0	0	6.58E-06	0	4.54E-05	5.96E-02	**0**
Acronyms	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 production and output flows

Waste production

Results per declared unit											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B**	**C1**	**C2**	**C3**	**C4**	**Total**	**D**
Hazardous waste disposed	kg	5.15E-05	1.55E-07	1.04E-06	0	0	2.05E-08	0	1.38E-08	5.27E-05	**0**
Non-hazardous waste disposed	kg	9.09E-02	1.51E-02	7.93E-03	0	0	1.68E-03	0	2.82E-01	3.98E-01	**0**
Radioactive waste disposed	kg	1.20E-05	1.96E-06	3.08E-07	0	0	2.39E-07	0	2.76E-07	1.47E-05	**0**

[5] The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Output flows

Results per declared unit											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B**	**C1**	**C2**	**C3**	**C4**	**Total**	**D**
Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
Material for recycling	kg	1,19E-03	0	2,1E-02	0	0	0	0	0	0	**0**
Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
Exported energy, electricity	kg	0	0	0	0	0	0	0	0	0	0
Exported energy, thermal	kg	0	0	0	0	0	0	0	0	0	0

Information on biogenic carbon content

Results per functional or declared unit		
BIOGENIC CARBON CONTENT	**Unit**	**QUANTITY**
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO_2

Annex 4

These results are valid for the next products since their impact differs less than 10%: **G-200** (0,18 l/m2), **LISOMAX** (0,18 l/m2) and **B-12** (0,15 l/m2).

Potential environmental impact – mandatory indicators according to EN 15804

Results per declared unit											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B**	**C1**	**C2**	**C3**	**C4**	**Total**	**D**
GWP-total	kg CO_2 eq.	3.18E-01	7.73E-03	4.74E-03	0	0	9.28E-04	0	9.68E-04	3.33E-01	**0**
GWP-fossil	kg CO_2 eq.	3.04E-01	7.67E-03	4.58E-03	0	0	9.20E-04	0	9.54E-04	3.18E-01	**0**
GWP-biogenic	kg CO_2 eq.	1.45E-02	6.50E-05	1.51E-04	0	0	7.88E-06	0	1.38E-05	1.47E-02	**0**
GWP-luluc	kg CO_2 eq.	2.56E-04	1.76E-06	3.98E-06	0	0	2.05E-07	0	1.69E-07	2.62E-04	**0**
ODP	kg CFC 11 eq.	3.46E-08	1.57E-09	3.99E-10	0	0	1.89E-10	0	3.78E-10	3.72E-08	**0**
AP	mol H^+ eq.	1.68E-03	3.03E-05	3.56E-05	0	0	3.11E-06	0	9.43E-06	1.76E-03	**0**
EP-freshwater	kg PO_4^{3-} eq.	1.71E-05	1.09E-07	3.51E-07	0	0	1.31E-08	0	1.24E-08	1.76E-05	**0**
EP-marine	kg N eq.	2.72E-04	6.21E-06	5.84E-06	0	0	6.42E-07	0	3.42E-06	2.88E-04	**0**
EP-terrestrial	mol N eq.	3.32E-03	7.05E-05	7.10E-05	0	0	7.30E-06	0	3.82E-05	3.50E-03	**0**
POCP	kg NMVOC eq.	1.18E-03	2.61E-05	1.03E-04	0	0	2.86E-06	0	1.08E-05	5.27E-03	**0**
ADP-minerals&metals*	kg Sb eq.	1.09E-06	1.52E-08	6.29E-09	0	0	1.87E-09	0	1.02E-09	1.12E-06	**0**
ADP-fossil*	MJ	4.48E+00	1.25E-01	8.09E-02	0	0	1.51E-02	0	3.10E-02	4.73E+00	**0**
WDP	m^3	1.77E-01	7.72E-04	4.25E-03	0	0	9.30E-05	0	1.22E-04	1.83E-01	**0**
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 of these results are high or as there is limited experience with the indicator.*

Potential environmental impact – additional mandatory and voluntary indicators

Results per declared unit											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B**	**C1**	**C2**	**C3**	**C4**	**Total**	**D**
GWP-GHG[6]	kg CO_2 eq.	3.04E-01	7.67E-03	4.58E-03	0	0	9.20E-04	0	9.54E-04	3.18E-01	**0**

Use of resources

Results per declared unit											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B**	**C1**	**C2**	**C3**	**C4**	**Total**	**D**
PERE	MJ	6.02E-01	2.28E-03	9.00E-03	0	0	2.72E-04	0	4.15E-04	6.14E-01	**0**
PERM	MJ	0	0	0	0	0	0	0	0	0	**0**
PERT	MJ	6.02E-01	2.28E-03	9.00E-03	0	0	2.72E-04	0	4.15E-04	6.14E-01	**0**
PENRE	MJ	5.48E+00	1.37E-01	9.42E-02	0	0	1.65E-02	0	3.37E-02	5.76E+00	**0**
PENRM	MJ.	0	0	0	0	0	0	0	0	0	**0**
PENRT	MJ	5.48E+00	1.37E-01	9.42E-02	0	0	1.65E-02	0	3.37E-02	5.76E+00	**0**
SM	kg	0	0	0	0	0	0	0	0	0	**0**
RSF	MJ	0	0	0	0	0	0	0	0	0	**0**
NRSF	MJ	0	0	0	0	0	0	0	0	0	**0**
FW	m^3	3.59E-02	2.99E-05	1.01E-03	0	0	3.63E-06	0	3.57E-05	3.70E-02	**0**
Acronyms	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 production and output flows

Waste production

Results per declared unit											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B**	**C1**	**C2**	**C3**	**C4**	**Total**	**D**
Hazardous waste disposed	kg	4.13E-05	6.57E-08	9.21E-07	0	0	2.05E-08	0	7.89E-09	4.23E-05	**0**
Non-hazardous waste disposed	kg	9.64E-02	1.10E-02	6.16E-03	0	0	1.35E-03	0	2.22E-01	3.37E-01	**0**
Radioactive waste disposed	kg	1.47E-05	9.05E-07	1.99E-07	0	0	1.09E-07	0	2.16E-07	1.61E-05	**0**

[6] The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Output flows

Results per declared unit										
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B**	**C1**	**C2**	**C3**	**C4**	**Total**	**D**
Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
Material for recycling	kg	9,0E-04	0	4,0E-02	0	0	0	0	0	0	**0**
Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
Exported energy, electricity	kg	0	0	0	0	0	0	0	0	0	0
Exported energy, thermal	kg	0	0	0	0	0	0	0	0	0	0

Information on biogenic carbon content

Results per functional or declared unit		
BIOGENIC CARBON CONTENT	**Unit**	**QUANTITY**
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO_2

Annex 5

These results are valid for the next products since their impact differs less than 10%: **JUNO RESULTA** (0,22 l/m2), **J-35** (0,18 l/m2), **ALTA CUBRICIÓN** (0,33 l/m2) and **CASTOR PICAR** (0,25 l/m2).

Potential environmental impact – mandatory indicators according to EN 15804

Results per declared unit											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B**	**C1**	**C2**	**C3**	**C4**	**Total**	**D**
GWP-total	kg CO_2 eq.	3.70E-01	1.93E-02	8.05E-03	0	0	2.25E-03	0	1.22E-03	4.01E-01	**0**
GWP-fossil	kg CO_2 eq.	3.57E-01	3.57E-01	7.77E-03	0	0	2.23E-03	0	1.20E-03	3.87E-01	**0**
GWP-biogenic	kg CO_2 eq.	1.34E-02	1.34E-02	2.74E-04	0	0	1.51E-05	0	1.74E-05	1.38E-02	**0**
GWP-luluc	kg CO_2 eq.	2.76E-04	6.55E-06	5.74E-06	0	0	6.41E-07	0	2.13E-07	2.89E-04	**0**
ODP	kg CFC 11 eq.	2.79E-08	3.56E-09	6.79E-10	0	0	4.14E-10	0	4.75E-10	3.30E-08	**0**
AP	mol H^+ eq.	1.70E-03	2.39E-04	3.98E-05	0	0	6.54E-06	0	1.18E-05	2.00E-03	**0**
EP-freshwater	kg PO_4^{3-} eq.	1.44E-05	2.93E-07	2.99E-07	0	0	3.43E-08	0	1.56E-08	1.51E-05	**0**
EP-marine	kg N eq.	2.85E-04	4.73E-05	6.87E-06	0	0	1.22E-06	0	4.30E-06	3.45E-04	**0**
EP-terrestrial	mol N eq.	3.38E-03	5.33E-04	8.08E-05	0	0	1.39E-05	0	4.80E-05	4.06E-03	**0**
POCP	kg NMVOC eq.	1.21E-03	1.52E-04	3.39E-04	0	0	5.29E-06	0	1.36E-05	6.45E-03	**0**
ADP-minerals&metals*	kg Sb eq.	8.21E-07	2.46E-08	1.76E-08	0	0	6.91E-09	0	1.29E-09	8.71E-07	**0**
ADP-fossil*	MJ	5.30E+00	2.92E-01	1.16E-01	0	0	3.36E-02	0	3.89E-02	5.78E+00	**0**
WDP	m^3	1.88E-01	1.84E-03	4.43E-03	0	0	1.77E-04	0	1.54E-04	1.95E-01	**0**
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 of these results are high or as there is limited experience with the indicator.*

Potential environmental impact – additional mandatory and voluntary indicators

Results per declared unit											
Indicator	Unit	A1-A3	A4	A5	B	C1	C2	C3	C4	Total	D
GWP-GHG[7]	kg CO_2 eq.	3.57E-01	3.57E-01	7.77E-03	0	0	2.23E-03	0	1.20E-03	3.87E-01	0

Use of resources

Results per declared unit											
Indicator	Unit	A1-A3	A4	A5	B	C1	C2	C3	C4	Total	D
PERE	MJ	6.26E-01	5.97E-03	1.27E-02	0	0	5.06E-04	0	5.21E-04	6.46E-01	0
PERM	MJ	0	0	0	0	0	0	0	0	0	0
PERT	MJ	6.26E-01	5.97E-03	1.27E-02	0	0	5.06E-04	0	5.21E-04	6.46E-01	0
PENRE	MJ	6.34E+00	3.22E-01	1.38E-01	0	0	3.65E-02	0	4.23E-02	6.88E+00	0
PENRM	MJ.	0	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.34E+00	3.22E-01	1.38E-01	0	0	3.65E-02	0	4.23E-02	6.88E+00	0
SM	kg	0	0	0	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0	0	0
FW	m^3	4.15E-02	1.69E-04	9.29E-04	0	0	2.03E-05	0	1.40E-04	4.28E-02	0
Acronyms	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 production and output flows

Waste production

Results per declared unit											
Indicator	Unit	A1-A3	A4	A5	B	C1	C2	C3	C4	Total	D
Hazardous waste disposed	kg	6.60E-05	1.63E-07	1.33E-06	0	0	2.02E-08	0	1.36E-08	6.75E-05	0
Non-hazardous waste disposed	kg	9.27E-02	1.67E-02	7.93E-03	0	0	1.66E-03	0	2.79E-01	3.98E-01	0
Radioactive waste disposed	kg	1.16E-05	2.07E-06	3.02E-07	0	0	2.36E-07	0	2.72E-07	1.45E-05	0

[7] The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Output flows

Results per declared unit											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B**	**C1**	**C2**	**C3**	**C4**	**Total**	**D**
Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
Material for recycling	kg	1,16E-03	0	2,1E-02	0	0	0	0	0	0	0
Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
Exported energy, electricity	kg	0	0	0	0	0	0	0	0	0	0
Exported energy, thermal	kg	0	0	0	0	0	0	0	0	0	0

Information on biogenic carbon content

Results per functional or declared unit		
BIOGENIC CARBON CONTENT	**Unit**	**QUANTITY**
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO_2

Annex 6

OFITECH (0,11 l/m2)

Potential environmental impact – mandatory indicators according to EN 15804

Results per declared unit											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B**	**C1**	**C2**	**C3**	**C4**	**Total**	**D**
GWP-total	kg CO_2 eq.	5.42E-01	5.94E-03	3.39E-03	0	0	6.30E-04	0	6.57E-04	5.53E-01	0
GWP-fossil	kg CO_2 eq.	5.12E-01	5.89E-03	3.28E-03	0	0	6.25E-04	0	6.47E-04	5.23E-01	0
GWP-biogenic	kg CO_2 eq.	2.95E-02	4.97E-05	1.10E-04	0	0	5.35E-06	0	9.40E-06	2.96E-02	0
GWP-luluc	kg CO_2 eq.	6.30E-04	1.38E-06	2.89E-06	0	0	1.39E-07	0	1.15E-07	6.35E-04	0
ODP	kg CFC 11 eq.	4.14E-08	1.20E-09	2.77E-10	0	0	1.29E-10	0	2.57E-10	4.32E-08	0
AP	mol H^+ eq.	2.69E-03	2.53E-05	5.50E-05	0	0	2.11E-06	0	6.40E-06	2.78E-03	0
EP-freshwater	kg PO_4^{3-} eq.	3.07E-05	8.42E-08	6.19E-07	0	0	8.87E-09	0	8.43E-09	3.14E-05	0
EP-marine	kg N eq.	4.09E-04	5.15E-06	8.44E-06	0	0	4.36E-07	0	2.32E-06	4.25E-04	0
EP-terrestrial	mol N eq.	5.77E-03	5.84E-05	1.18E-04	0	0	4.96E-06	0	2.59E-05	5.98E-03	0
POCP	kg NMVOC eq.	1.43E-03	2.11E-05	2.97E-05	0	0	1.94E-06	0	7.36E-06	4.39E-03	0
ADP-minerals&metals*	kg Sb eq.	5.74E-07	1.15E-08	4.36E-09	0	0	4.36E-09	0	6.95E-10	5.92E-07	0
ADP-fossil*	MJ	5.82E+00	9.58E-02	5.80E-02	0	0	1.02E-02	0	2.10E-02	6.00E+00	0
WDP	m^3	8.69E-01	5.92E-04	1.79E-02	0	0	6.31E-05	0	8.31E-05	8.88E-01	0
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 of these results are high or as there is limited experience with the indicator.*

Potential environmental impact – additional mandatory and voluntary indicators

Results per declared unit											
Indicator	Unit	A1-A3	A4	A5	B	C1	C2	C3	C4	Total	D
GWP-GHG[8]	kg CO_2 eq.	5.12E-01	5.89E-03	3.28E-03	0	0	6.25E-04	0	6.47E-04	5.23E-01	0

Use of resources

Results per declared unit											
Indicator	Unit	A1-A3	A4	A5	B	C1	C2	C3	C4	Total	D
PERE	MJ	2.06E+00	1.75E-03	6.58E-03	0	0	1.85E-04	0	2.82E-04	2.06E+00	0
PERM	MJ	0	0	0	0	0	0	0	0	0	0
PERT	MJ	2.06E+00	1.75E-03	6.58E-03	0	0	1.85E-04	0	2.82E-04	2.06E+00	0
PENRE	MJ	7.52E+00	1.05E-01	6.77E-02	0	0	1.12E-02	0	2.28E-02	7.73E+00	0
PENRM	MJ.	0	0	0	0	0	0	0	0	0	0
PENRT	MJ	7.52E+00	1.05E-01	6.77E-02	0	0	1.12E-02	0	2.28E-02	7.73E+00	0
SM	kg	0	0	0	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0	0	0
FW	m^3	1.23E-02	2.28E-05	7.39E-04	0	0	2.47E-06	0	2.42E-05	1.31E-02	0
Acronyms	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 production and output flows

Waste production

Results per declared unit											
Indicator	Unit	A1-A3	A4	A5	B	C1	C2	C3	C4	Total	D
Hazardous waste disposed	kg	5.00E-05	5.04E-08	6.75E-07	0	0	5.36E-09	0	7.35E-09	5.08E-05	0
Non-hazardous waste disposed	kg	9.95E-02	8.29E-03	4.22E-03	0	0	9.17E-04	0	1.51E-01	2.63E-01	0
Radioactive waste disposed	kg	2.27E-05	6.93E-07	1.37E-07	0	0	7.42E-08	0	1.47E-07	2.37E-05	0

[8] The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Output flows

Results per declared unit										
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B**	**C1**	**C2**	**C3**	**C4**	**Total**	**D**
Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
Material for recycling	kg	6,6E-04	0	1,9E-02	0	0	0	0	0	0	0
Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
Exported energy, electricity	kg	0	0	0	0	0	0	0	0	0	0
Exported energy, thermal	kg	0	0	0	0	0	0	0	0	0	0

Information on biogenic carbon content

Results per functional or declared unit		
BIOGENIC CARBON CONTENT	**Unit**	**QUANTITY**
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO_2

Annex 7

ANTICONDENSACIÓN (1 l/m2)

Potential environmental impact – mandatory indicators according to EN 15804

Results per declared unit											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B**	**C1**	**C2**	**C3**	**C4**	**Total**	**D**
GWP-total	kg CO_2 eq.	1.67E+00	5.65E-02	3.58E-02	0	0	7.00E-03	0	3.79E-03	1.78E+00	0
GWP-fossil	kg CO_2 eq.	1.62E+00	5.61E-02	3.46E-02	0	0	6.95E-03	0	3.74E-03	1.72E+00	0
GWP-biogenic	kg CO_2 eq.	5.60E-02	4.06E-04	1.14E-03	0	0	4.72E-05	0	5.42E-05	5.76E-02	0
GWP-luluc	kg CO_2 eq.	9.68E-04	2.00E-05	2.01E-05	0	0	2.00E-06	0	6.64E-07	1.01E-03	0
ODP	kg CFC 11 eq.	1.04E-07	1.03E-08	2.53E-09	0	0	1.29E-09	0	1.48E-09	1.20E-07	0
AP	mol H^+ eq.	7.11E-03	1.36E-04	1.49E-04	0	0	2.04E-05	0	3.70E-05	7.46E-03	0
EP-freshwater	kg PO_4^{3-} eq.	5.17E-05	4.47E-07	1.06E-06	0	0	1.07E-07	0	4.87E-08	5.34E-05	0
EP-marine	kg N eq.	1.18E-03	2.77E-05	2.50E-05	0	0	3.80E-06	0	1.34E-05	1.25E-03	0
EP-terrestrial	mol N eq.	1.39E-02	3.14E-04	2.94E-04	0	0	4.34E-05	0	1.50E-04	1.47E-02	0
POCP	kg NMVOC eq.	5.21E-03	1.13E-04	1.10E-04	0	0	1.65E-05	0	4.25E-05	3.18E-02	0
ADP-minerals&metals*	kg Sb eq.	2.01E-06	6.66E-08	4.50E-08	0	0	2.15E-08	0	4.01E-09	2.14E-06	0
ADP-fossil*	MJ	2.62E+01	8.47E-01	5.60E-01	0	0	1.05E-01	0	1.21E-01	2.78E+01	0
WDP	m^3	7.26E-01	3.14E-03	1.66E-02	0	0	5.52E-04	0	4.80E-04	7.47E-01	0
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 of these results are high or as there is limited experience with the indicator.*

Potential environmental impact – additional mandatory and voluntary indicators

Results per declared unit											
Indicator	Unit	A1-A3	A4	A5	B	C1	C2	C3	C4	Total	D
GWP-GHG[9]	kg CO_2 eq.	1.62E+00	5.61E-02	3.46E-02	0	0	6.95E-03	0	3.74E-03	1.72E+00	0

Use of resources

Results per declared unit											
Indicator	Unit	A1-A3	A4	A5	B	C1	C2	C3	C4	Total	D
PERE	MJ	2.78E+00	1.76E-02	5.63E-02	0	0	1.58E-03	0	1.63E-03	2.85E+00	0
PERM	MJ	0	0	0	0	0	0	0	0	0	0
PERT	MJ	2.78E+00	1.76E-02	5.63E-02	0	0	1.58E-03	0	1.63E-03	2.85E+00	0
PENRE	MJ	3.08E+01	9.32E-01	6.56E-01	0	0	1.14E-01	0	1.32E-01	3.26E+01	0
PENRM	MJ.	0	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.08E+01	9.32E-01	6.56E-01	0	0	1.14E-01	0	1.32E-01	3.26E+01	0
SM	kg	0	0	0	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0	0	0
FW	m^3	4.15E-02	1.69E-04	9.29E-04	0	0	2.03E-05	0	1.40E-04	4.28E-02	0
Acronyms	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 production and output flows

Waste production

Results per declared unit											
Indicator	Unit	A1-A3	A4	A5	B	C1	C2	C3	C4	Total	D
Hazardous waste disposed	kg	1.60E-04	4.77E-07	3.23E-06	0	0	6.31E-08	0	4.25E-08	1.64E-04	0
Non-hazardous waste disposed	kg	3.42E-01	4.45E-02	2.59E-02	0	0	5.18E-03	0	8.69E-01	1.29E+00	0
Radioactive waste disposed	kg	4.32E-05	5.97E-06	1.12E-06	0	0	7.36E-07	0	8.48E-07	3.26E-03	0

[9] The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Output flows

Results per declared unit											
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B**	**C1**	**C2**	**C3**	**C4**	**Total**	**D**
Components for re-use	kg	0	0	0	0	0	0	0	0	0	0
Material for recycling	kg	3,65E-03	0	11,7E-02	0	0	0	0	0	0	0
Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0
Exported energy, electricity	kg	0	0	0	0	0	0	0	0	0	0
Exported energy, thermal	kg	0	0	0	0	0	0	0	0	0	0

Information on biogenic carbon content

Results per functional or declared unit		
BIOGENIC CARBON CONTENT	**Unit**	**QUANTITY**
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO_2

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