Environmental Product Declaration

In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:
EPD of multiple products based on representative product

Manual Venetian Blinds

P System: SL20P SL22P SL24P Veneziana; SL16P ScreenView
B System: SL20B SL22B SL27B Veneziana; SL20B SL22B Side Veneziana 2.0
S System: SL16S Veneziana; SL20S SL22S Veneziana 2.0; SL20S SL22S Plissé; SL20S SL22S Plissé Blackout; SL20SP SL22SP Plissé 2.0; SL20SP SL22SP Plissé Blackout
C System: SL16C Veneziana; SL20C SL22C SL27C SL29C SL32C Veneziana; SL20C SL22C Plissé; SL27C SL29C SL32C Plissé Blackout; SL27C Rullo

from

Pellini S.p.a.

Programme:	The International EPD System, www.environdec.com
Programme operator:	EPD International AB
Type of EPD:	EPD of multiple products based on representative product
EPD registration number:	EPD-IES-0028987:001
Version date:	2026-11-16
Validity date:	2031-11-15

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
E-mail:	support@environdec.com

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 (EN 15804+A2) (2.0.1), UN CPC code 2713 - Curtains (including drapes) and interior blinds; curtain or bed valances*
PCR review was conducted by: *The Technical Committee of the International EPD® System Rob Rouwette (chair) and Noa Meron (co-chair) Contact via info@environdec.com*

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: DNV Business Assurance Italy S.r.l. Accredited by: Accredia, accreditation number N. 10 REV. 01
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: Pellini S.p.a.
Address: Via Fusari, 19·26845 Codogno-LO·Italy
Contact: ggennaro@pellini.net
Address and contact information of the LCA practitioner commissioned by the EPD owner, if applicable: QualityNet Srl
Description of the organisation: Pellini S.p.A. is an Italian manufacturer of sun-shading systems headquartered in Codogno. The company designs and produces Venetian blinds and integrated blind systems for residential, commercial, and specialized applications. Its product range includes solutions for double-glazed units and technical interior shading systems. Pellini S.p.A. operates in international markets through a structured production and distribution network.

PRODUCT INFORMATION

Product name: Manual Venetian Blinds (SL20S Veneziana 2.0)
This is a EPD of multiple products based on representative product. Products covered by this EPD are presented in the list below.

- P System: SL20P SL22P SL24P Veneziana; SL16P ScreenView
- B System: SL20B SL22B SL27B Veneziana; SL20B SL22B Side Veneziana 2.0
- S System: SL16S Veneziana; SL20S SL22S Veneziana 2.0; SL20S SL22S Plissé; SL20S SL22S Plissé Blackout; SL20SP SL22SP Plissé 2.0; SL20SP SL22SP Plissé Blackout
- C System: SL16C Veneziana; SL20C SL22C SL27C SL29C SL32C Veneziana; SL20C SL22C Plissé; SL27C SL29C SL32C Plissé Blackout; SL27C Rullo

Product identification: SL20S Veneziana is the representative product. The selection criterion for the representative product was the most produced item, which coincides with the most sold and produced item since the company operates on a made-to-order basis.
Visual representation (e.g., an image) of the product:



UN CPC code: *2713 - Curtains (including drapes) and interior blinds; curtain or bed valances*

ScreenLine® SL20S Veneziana 2.0 is a patented magnetic system, manually operated, with lifting and tilting functions for blinds inserted in double glazing with a 20 mm cavity. The SL20S Veneziana 2.0 blind is operated by a magnetic slider located on the right or left edge of the glass. A thin transparent adhesive profile ensures linear movement of the slider. Vertical movement of the slider allows the blind to be raised and lowered, while a slight upward or downward movement allows the slats to be tilted. The SL20S Veneziana 2.0 system is suitable for all types of windows. It guarantees the insulation characteristics of the double glazing over time, with protection from dirt and atmospheric agents. It is

installed in the window frame like a simple double glazing unit. The system is supplied with a warm edge channel as standard.

Name and location of production site: Via Fusari, 19·26845 Codogno-LO·Italy

CONTENT DECLARATION

The mass (weight) of one unit per declared unit:

	Unit	Value
Declared Unit	m^2	1
Conversion factor to mass	kg	1,2

Information on the environmental and hazardous/toxic properties of a substances contained in the product: There are no substances included in the Candidate List of Substances of Very High Concern (SVHCs) exceeding the registration limits established by the European Chemicals Agency (ECHA).

Content of the product in the form of a list of materials and substances, and their mass:

Product content	Mass, kg	Post-consumer recycled material, mass-% of product	Range of the content, kg	Biogenic material, mass-% of product	Biogenic material, kg C/product or declared unit
Aluminium components	1,010	0%	0,60-2,34*	0%	0
Plastic components	0,795	0%		0%	0
WEEE and Metal components	0,099	0%		0%	0
TOTAL	1,903	0%		0%	0

**The range is made with respect to aluminium, which is the most significant component.*

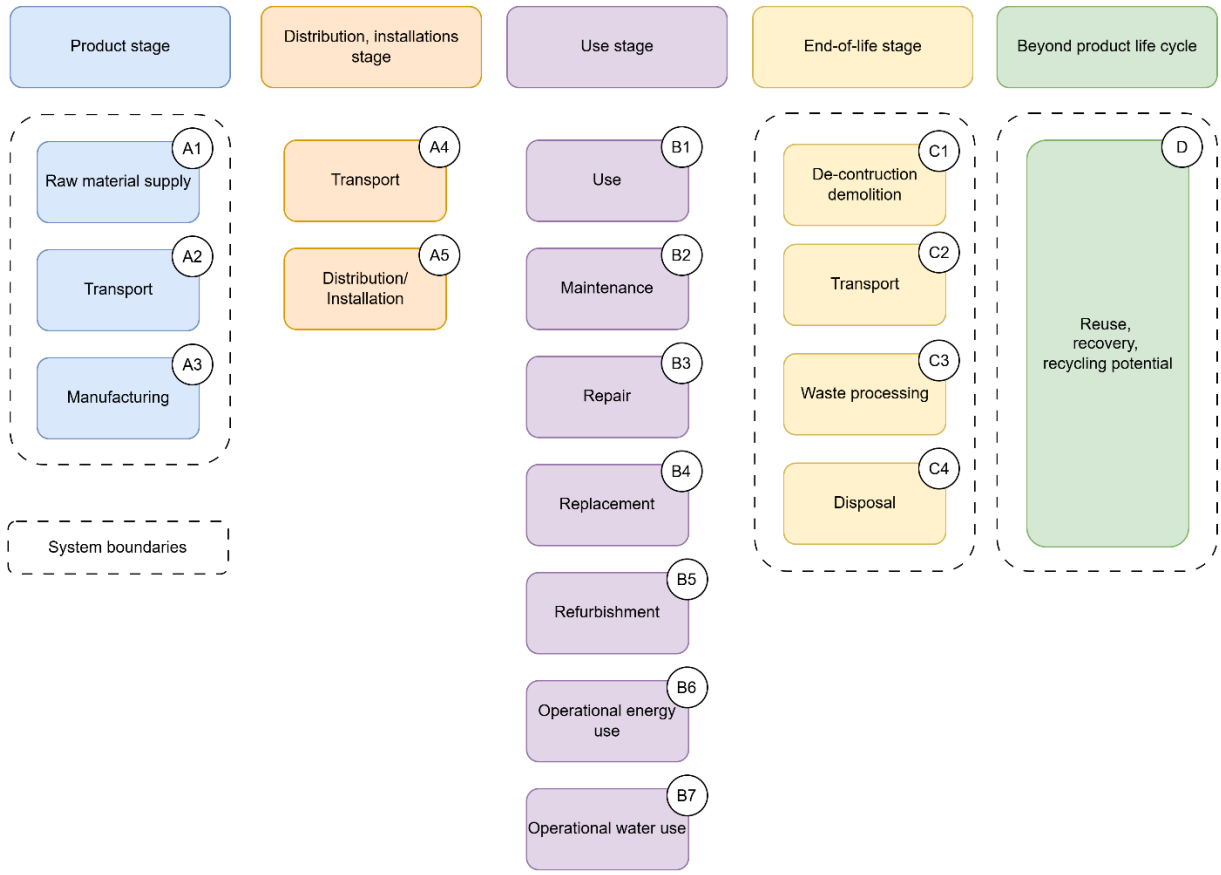
The mass and the content of distribution and/or consumer packaging:

Packaging materials	Mass, kg	Mass-% (versus the product)	Biogenic material, kg C/product
Plastic film	0,016	1%	
Cardboard packaging	0,788	41%	3,28E-01
TOTAL	0,804	42%	

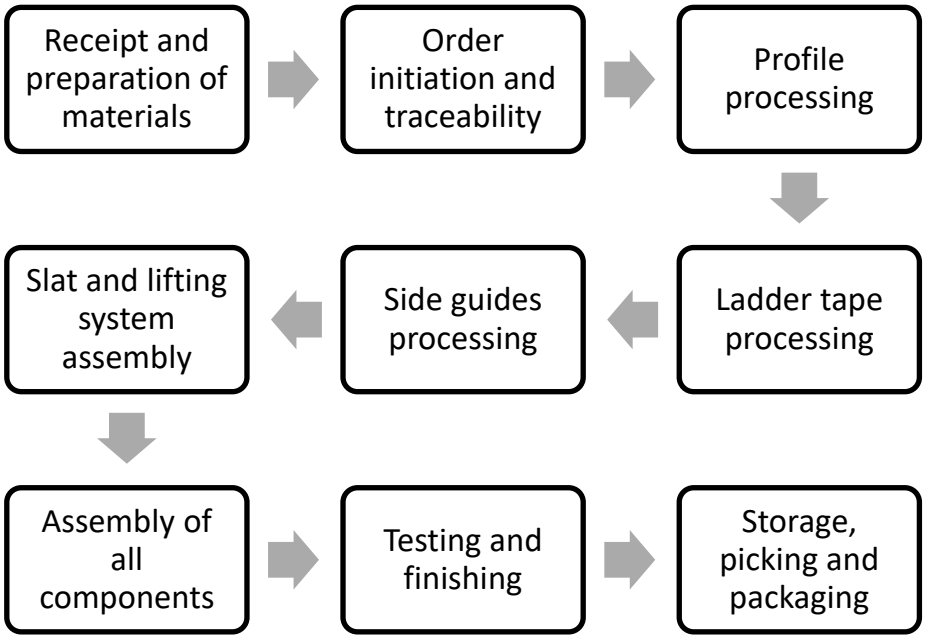
1 kg biogenic carbon in the product/packaging is equivalent to the uptake of 44/12 kg of CO_2.

LCA INFORMATION

Declared unit: 1 m^2 representative product.
Time representativeness: 2024
Geographical scope: ITA – RER -GLO
Database(s) and LCA software used: Simapro 10.3.0.1, Ecoinvent 3.11 EN 15804, version: EF 3.1.
Description of system boundaries: Cradle to gate with module C1-C4 and module D
Process flow diagram:



The operational processes of module A3 (manufacturing) can be summarized as follows:



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

	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	ND	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	ITA, GLO	ITA, GLO	ITA	-	-	-	-	-	-	-	-	-	RER	RER	RER	RER	RER
Share of primary data	2,59%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	>10%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-

The GWP-GHG value of the electricity in A3 is equal to 1,07384 kgCO_2eq/Kwh.

In accordance with Section 5.2 of EN 15804 and Paragraph 2.2.2 of PCR 2019:14 Version 2.0.1, the EPD type considered is ”Cradle to gate with module C1-C4 and module D”. 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).

The share of primary data is calculated based on GWP-GHG results. It is a simplified indicator for data quality that supports the use of more primary data, to increase the representativeness of and comparability between EPDs. Note that the indicator does not capture all relevant aspects of data quality and is not comparable across product categories.

The dataset used to calculate electricity impacts is reconstructed in SimaPro based on the breakdown of values provided in the AIB 2024 Residual Mix Excel file, with the energy sources subsequently mapped to their corresponding processes in Ecoinvent.

The difference between the two products arises from variations in components, technical features, and accessories.

Process name	Source type	Source	Relevance year	Data category	Share greater than 10% GWP-GHG results for A1-A3
Electricity consumption	Collected data	EPD owner	2024	Primary data	1,73%
Transportation	Collected data	EPD owner	2024	Primary data	1,03%
Plastic components	Database	Ecoinvent 3.11	2024	Secondary data	0%
Aluminium components	Database	Ecoinvent 3.11	2024	Secondary data	0%
Electric components and cables	Database	Ecoinvent 3.11	2024	Secondary data	0%
Cardboard packaging	Database	Ecoinvent 3.11	2024	Secondary data	0%
total share of primary data, of GWP-GHG results for A1-A3					2,76%

For modules C1-C4, the reference standard applies:

- C1= 0 (It is assumed that the blind can be removed manually)
- C2= 80 km
- C3= 70% recovery for each component of the product, as per the CAM Declaration – Minimum Environmental Criteria - 70% recycling
- C4= 30% disposal - 30% landfill for the remaining part

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.

Mandatory impact category indicators according to EN 15804

Results per declared unit							
Indicator	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-fossil	kg CO_2 eq.	2,43E+01	0,00E+00	2,63E-02	5,29E-01	3,42E-02	-1,90E+01
GWP-biogenic	kg CO_2 eq.	9,30E-02	0,00E+00	9,13E-07	5,92E-04	3,35E-06	-2,50E-02
GWP-luluc	kg CO_2 eq.	1,36E-01	0,00E+00	4,16E-07	8,00E-04	1,17E-06	-4,77E-02
GWP-total	kg CO_2 eq.	2,46E+01	0,00E+00	2,63E-02	5,30E-01	3,42E-02	-1,91E+01
ODP	kg CFC 11 eq.	4,70E-07	0,00E+00	5,97E-10	2,59E-09	1,98E-10	-4,50E-06
AP	mol H^+ eq.	1,52E-01	0,00E+00	6,79E-05	8,54E-04	4,27E-05	-1,69E-01
EP-freshwater	kg P eq.	8,97E-03	0,00E+00	1,35E-07	1,31E-04	4,82E-07	-1,10E-02
EP-marine	kg N eq.	2,90E-02	0,00E+00	2,59E-05	2,96E-04	5,11E-04	-2,32E-02
EP-terrestrial	mol N eq.	2,80E-01	0,00E+00	2,83E-04	1,79E-03	1,95E-04	-2,48E-01
POCP	kg NMVOC eq.	9,09E-02	0,00E+00	1,12E-04	5,76E-04	7,17E-05	-8,95E-02
ADP-minerals&metals*	kg Sb eq.	2,07E-04	0,00E+00	6,86E-10	4,42E-08	2,65E-09	-2,14E-03
ADP-fossil*	MJ	3,05E+02	0,00E+00	3,50E-01	3,63E+00	1,54E-01	-2,34E+02
WDP*	m^3	7,38E+00	0,00E+00	2,78E-04	8,78E-02	-1,03E-01	-4,84E+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 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 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.

Additional mandatory and voluntary impact category indicators

Results per declared unit							
Indicator	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-GHG	kg CO_2 eq.	2,43E+01	0,00E+00	2,62E-02	5,24E-01	3,32E-02	-1,89E+01

Resource use indicators

Results per declared unit							
Indicator	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	MJ	1,93E+01	0,00E+00	8,72E-04	9,62E-01	1,13E-02	-1,98E+01
PERM	MJ	2,69E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	4,62E+01	0,00E+00	8,72E-04	9,62E-01	1,13E-02	-1,98E+01
PENRE	MJ	2,86E+02	0,00E+00	3,50E-01	3,63E+00	-8,51E+00	-2,21E+02
PENRM	MJ	1,95E+01	0,00E+00	0,00E+00	0,00E+00	8,67E+00	-1,35E+01
PENRT	MJ	3,06E+02	0,00E+00	3,50E-01	3,63E+00	1,54E-01	-2,34E+02
SM	kg	2,11E+00	0,00E+00	1,80E-07	3,33E-05	4,19E-05	-1,37E-02
RSF	MJ	2,68E-01	0,00E+00	1,49E-08	1,85E-06	6,12E-07	-3,98E-04
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m^3	1,83E-01	0,00E+00	6,77E-06	2,37E-03	-2,38E-03	-1,25E-01
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 indicators

Results per declared unit							
Indicator	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
Hazardous waste disposed	kg	5,16E+00	0,00E+00	1,33E-05	1,06E-02	2,51E-03	-3,54E+00

Non-hazardous waste disposed	kg	4,55E+01	0,00E+00	1,13E-03	9,50E-01	3,14E+00	-5,13E+01
Radioactive waste disposed	kg	3,40E-04	0,00E+00	2,11E-08	2,48E-05	1,69E-07	-1,79E-04

Output flow indicators

Results per declared unit							
Indicator	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	3,02E-01	0,00E+00	7,88E-09	1,07E+00	1,26E-05	1,06E+00
Materials for energy recovery	kg	1,95E-05	0,00E+00	5,16E-11	2,67E-08	1,76E-09	-5,67E-06
Exported energy, electricity	MJ	2,66E-01	0,00E+00	1,40E-05	1,67E-02	3,09E-03	-6,53E-02
Exported energy, thermal	MJ	9,21E-02	0,00E+00	3,31E-05	2,17E-04	8,85E-04	-3,36E-02

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

The results of the impact assessment for modules C3, C4, and D are presented below, structured according to two extreme scenarios: the first assumes 100% recycling of the product, while the second assumes complete disposal (100%).

100% RECYCLING SCENARIO

Mandatory impact category indicators according to EN 15804

Results per declared unit							
Indicator	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-fossil	kg CO_2 eq.	2,43E+01	0,00E+00	2,63E-02	7,56E-01	0,00E+00	-1,90E+01
GWP-biogenic	kg CO_2 eq.	9,30E-02	0,00E+00	9,13E-07	8,45E-04	0,00E+00	-2,50E-02
GWP-luluc	kg CO_2 eq.	1,36E-01	0,00E+00	4,16E-07	1,14E-03	0,00E+00	-4,77E-02
GWP-total	kg CO_2 eq.	2,46E+01	0,00E+00	2,63E-02	7,58E-01	0,00E+00	-1,91E+01
ODP	kg CFC 11 eq.	4,70E-07	0,00E+00	5,97E-10	3,70E-09	0,00E+00	-4,50E-06
AP	mol H^+ eq.	1,52E-01	0,00E+00	6,79E-05	1,22E-03	0,00E+00	-1,69E-01
EP-freshwater	kg P eq.	8,97E-03	0,00E+00	1,35E-07	1,87E-04	0,00E+00	-1,10E-02
EP-marine	kg N eq.	2,90E-02	0,00E+00	2,59E-05	4,23E-04	0,00E+00	-2,32E-02
EP-terrestrial	mol N eq.	2,80E-01	0,00E+00	2,83E-04	2,56E-03	0,00E+00	-2,48E-01
POCP	kg NMVOC eq.	9,09E-02	0,00E+00	1,12E-04	8,24E-04	0,00E+00	-8,95E-02
ADP-minerals&metals*	kg Sb eq.	2,07E-04	0,00E+00	6,86E-10	6,31E-08	0,00E+00	-2,14E-03
ADP-fossil*	MJ	3,05E+02	0,00E+00	3,50E-01	5,18E+00	0,00E+00	-2,34E+02
WDP*	m^3	7,38E+00	0,00E+00	2,78E-04	1,25E-01	0,00E+00	-4,84E+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 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 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.

Additional mandatory and voluntary impact category indicators

Results per declared unit							
Indicator	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-GHG	kg CO_2 eq.	2,43E+01	0,00E+00	2,62E-02	7,49E-01	0,00E+00	-1,89E+01

Resource use indicators

Results per declared unit							
Indicator	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	MJ	1,93E+01	0,00E+00	8,72E-04	1,37E+00	0,00E+00	-1,98E+01
PERM	MJ	2,69E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	4,62E+01	0,00E+00	8,72E-04	1,37E+00	0,00E+00	-1,98E+01
PENRE	MJ	2,86E+02	0,00E+00	3,50E-01	5,18E+00	0,00E+00	-2,21E+02
PENRM	MJ	1,95E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-1,35E+01
PENRT	MJ	3,06E+02	0,00E+00	3,50E-01	5,18E+00	0,00E+00	-2,34E+02
SM	kg	2,11E+00	0,00E+00	1,80E-07	4,76E-05	0,00E+00	-1,37E-02
RSF	MJ	2,68E-01	0,00E+00	1,49E-08	2,64E-06	0,00E+00	-3,98E-04
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m^3	1,83E-01	0,00E+00	6,77E-06	3,39E-03	0,00E+00	-1,25E-01
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 indicators

Results per declared unit							
Indicator	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
Hazardous waste disposed	kg	5,16E+00	0,00E+00	1,33E-05	1,52E-02	0,00E+00	-3,54E+00

Non-hazardous waste disposed	kg	4,55E+01	0,00E+00	1,13E-03	1,36E+00	0,00E+00	-5,13E+01
Radioactive waste disposed	kg	3,40E-04	0,00E+00	2,11E-08	3,54E-05	0,00E+00	-1,79E-04

Output flow indicators

Results per declared unit							
Indicator	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	3,02E-01	0,00E+00	7,88E-09	1,53E+00	0,00E+00	1,06E+00
Materials for energy recovery	kg	1,95E-05	0,00E+00	5,16E-11	3,81E-08	0,00E+00	-5,67E-06
Exported energy, electricity	MJ	2,66E-01	0,00E+00	1,40E-05	2,39E-02	0,00E+00	-6,53E-02
Exported energy, thermal	MJ	9,21E-02	0,00E+00	3,31E-05	3,09E-04	0,00E+00	-3,36E-02

100% DISPOSAL SCENARIO

Mandatory impact category indicators according to EN 15804

Results per declared unit							
Indicator	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-fossil	kg CO_2 eq.	2,43E+01	0,00E+00	2,63E-02	0,00E+00	1,14E-01	0,00E+00
GWP-biogenic	kg CO_2 eq.	9,30E-02	0,00E+00	9,13E-07	0,00E+00	1,12E-05	0,00E+00
GWP-luluc	kg CO_2 eq.	1,36E-01	0,00E+00	4,16E-07	0,00E+00	3,89E-06	0,00E+00
GWP-total	kg CO_2 eq.	2,46E+01	0,00E+00	2,63E-02	0,00E+00	1,14E-01	0,00E+00
ODP	kg CFC 11 eq.	4,70E-07	0,00E+00	5,97E-10	0,00E+00	6,60E-10	0,00E+00

AP	mol H^+ eq.	1,52E-01	0,00E+00	6,79E-05	0,00E+00	1,42E-04	0,00E+00
EP-freshwater	kg P eq.	8,97E-03	0,00E+00	1,35E-07	0,00E+00	1,61E-06	0,00E+00
EP-marine	kg N eq.	2,90E-02	0,00E+00	2,59E-05	0,00E+00	1,70E-03	0,00E+00
EP-terrestrial	mol N eq.	2,80E-01	0,00E+00	2,83E-04	0,00E+00	6,50E-04	0,00E+00
POCP	kg NMVOC eq.	9,09E-02	0,00E+00	1,12E-04	0,00E+00	2,39E-04	0,00E+00
ADP-minerals&metals*	kg Sb eq.	2,07E-04	0,00E+00	6,86E-10	0,00E+00	8,83E-09	0,00E+00
ADP-fossil*	MJ	3,05E+02	0,00E+00	3,50E-01	0,00E+00	5,14E-01	0,00E+00
WDP*	m^3	7,38E+00	0,00E+00	2,78E-04	0,00E+00	-3,42E-01	0,00E+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 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 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.

Additional mandatory and voluntary impact category indicators

Results per declared unit							
Indicator	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-GHG	kg CO_2 eq.	2,43E+01	0,00E+00	2,62E-02	0,00E+00	1,11E-01	0,00E+00

Resource use indicators

Results per declared unit							
Indicator	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	MJ	1,93E+01	0,00E+00	8,72E-04	0,00E+00	3,76E-02	0,00E+00
PERM	MJ	2,69E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	4,62E+01	0,00E+00	8,72E-04	0,00E+00	3,76E-02	0,00E+00
PENRE	MJ	2,86E+02	0,00E+00	3,50E-01	0,00E+00	-2,84E+01	0,00E+00
PENRM	MJ	1,95E+01	0,00E+00	0,00E+00	0,00E+00	2,89E+01	0,00E+00
PENRT	MJ	3,06E+02	0,00E+00	3,50E-01	0,00E+00	5,14E-01	0,00E+00
SM	kg	2,11E+00	0,00E+00	1,80E-07	0,00E+00	1,40E-04	0,00E+00

RSF	MJ	2,68E-01	0,00E+00	1,49E-08	0,00E+00	2,04E-06	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m^3	1,83E-01	0,00E+00	6,77E-06	0,00E+00	-7,94E-03	0,00E+00
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 indicators

Results per declared unit							
Indicator	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
Hazardous waste disposed	kg	5,16E+00	0,00E+00	1,33E-05	0,00E+00	8,36E-03	0,00E+00
Non-hazardous waste disposed	kg	4,55E+01	0,00E+00	1,13E-03	0,00E+00	1,05E+01	0,00E+00
Radioactive waste disposed	kg	3,40E-04	0,00E+00	2,11E-08	0,00E+00	5,64E-07	0,00E+00
Exported energy, electricity	MJ	2,66E-01	0,00E+00	1,40E-05	0,00E+00	1,03E-02	0,00E+00
Exported energy, thermal	MJ	9,21E-02	0,00E+00	3,31E-05	0,00E+00	2,95E-03	0,00E+00

Output flow indicators

Results per declared unit							
Indicator	**Unit**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	3,02E-01	0,00E+00	7,88E-09	0,00E+00	4,21E-05	0,00E+00
Materials for energy recovery	kg	1,95E-05	0,00E+00	5,16E-11	0,00E+00	5,86E-09	0,00E+00
Exported energy, electricity	MJ	2,66E-01	0,00E+00	1,40E-05	0,00E+00	1,03E-02	0,00E+00
Exported energy, thermal	MJ	9,21E-02	0,00E+00	3,31E-05	0,00E+00	2,95E-03	0,00E+00

ABBREVIATIONS

Abbreviation	Definition
General Abbreviations	
EN	European Norm (Standard)
EPD	Environmental Product Declaration
EF	Environmental Footprint
GPI	General Programme Instructions
ISO	International Organization for Standardization
LCA	Life Cycle Assessment
PCR	Product Category Rules
c-PCR	Complementary Product Category Rules
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
Environmental Impact Indicators (EN 15804)	
GHG	Greenhouse gas
GWP	Global Warming Potential (kg CO_2 eq.)
GWP-fossil	Global Warming Potential from fossil sources (kg CO_2 eq.)
GWP-biogenic	Global Warming Potential from biogenic sources (kg CO_2 eq.)
GWP-luluc	Global Warming Potential from land use and land use change (kg CO_2 eq.)
GWP-total	Total Global Warming Potential (kg CO_2 eq.)
GWP-GHG	Global Warming Potential for greenhouse gases (kg CO_2 eq.)
ODP	Ozone Depletion Potential (kg CFC-11 eq.)
AP	Acidification Potential (mol H^+ eq.)
EP	Eutrophication Potential
EP-freshwater	Freshwater eutrophication potential (kg P eq.)
EP-marine	Marine eutrophication potential (kg N eq.)
EP-terrestrial	Terrestrial eutrophication potential (mol N eq.)
POCP	Photochemical Ozone Creation Potential (kg NMVOC eq.)
ADP	Abiotic Depletion Potential
ADP-minerals&metals	Abiotic depletion potential for non-fossil resources (kg Sb eq.)
ADP-fossil	Abiotic depletion potential for fossil resources (MJ)
WDP	Water Deprivation Potential (m^3)
Resource Use Indicators	
PERE	Use of renewable primary energy excluding renewable primary energy resources used as raw materials (MJ)
PERM	Use of renewable primary energy resources used as raw materials (MJ)
PERT	Total use of renewable primary energy resources (MJ)
PENRE	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials (MJ)
PENRM	Use of non-renewable primary energy resources used as raw materials (MJ)
PENRT	Total use of non-renewable primary energy resources (MJ)
SM	Use of secondary material (kg)
RSF	Use of renewable secondary fuels (MJ)
NRSF	Use of non-renewable secondary fuels (MJ)
FW	Use of net fresh water (m^3)
Waste Indicators	
HW	Hazardous Waste (disposed) (kg)
NHW	Non-Hazardous Waste (disposed) (kg)
RW	Radioactive Waste (disposed) (kg)
Output Flow Indicators	
CFR	Components for Reuse (kg)
MR	Material for Recycling (kg)
MER	Materials for Energy Recovery (kg)

EEE	Exported Energy, Electricity (MJ)
EET	Exported Energy, Thermal (MJ)
Lifecycle Stages / Modules	
A1	Raw material supply
A2	Transport
A3	Manufacturing
A4	Transport to site
A5	Construction/Installation
B1	Use
B2	Maintenance
B3	Repair
B4	Replacement
B5	Refurbishment
B6	Operational energy use
B7	Operational water use
C1	Deconstruction/Demolition
C2	Transport to waste processing
C3	Waste processing
C4	Disposal
D	Reuse-Recovery-Recycling potential
Other Relevant Terms	
SVHC	Substances of Very High Concern
EC No.	European Community Number
CAS No.	Chemical Abstracts Service Number
MJ	Megajoule
kg	Kilogram
m^3	Cubic Meter
NMVOC	Non-Methane Volatile Organic Compounds
Sb eq.	Antimony Equivalents
P eq.	Phosphorus Equivalents
N eq.	Nitrogen Equivalents
CFC-11 eq.	Chlorofluorocarbon-11 Equivalents
CO_2 eq.	Carbon Dioxide Equivalents
kg C	Kilograms of Carbon
kg CO_2 eq.	Kilograms of Carbon Dioxide Equivalent
ND	Not Declared

REFERENCES

a) General Programme Instructions of International EPD System. Version 5.0.1
b) *PCR 2019:14 Construction products (EN 15804+A2) (2.0.1), CPC code 2716*
c) *Report LCA_Pellini_rev02_ENG*

VERSION HISTORY

Original Version of the EPD: 2026-11-16

EPD
INTERNATIONAL EPD SYSTEM

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