

ENVIRONMENTAL PRODUCT DECLARATION

Black and white expanded polystyrene (EPS) thermal insulation panel

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

Products included in the EPD:

CONVERTO 31 BW

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

EPD of multiple products based on a representative product

EPD Owner
IVAS SPA

Programme
International EPD System
www.environdec.com

Programme operator
EPD International AB

Registration number
EPD-IES-0028546:004

Version date
2026-03-12

Validity date
2031-03-12



GENERAL INFORMATION

Programme information

Programme	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

CEN standard EN 15804 serves as the Core Product Category Rules (PCR)	
Product Category Rules (PCR)	2019:14 Construction products (EN 15804+A2) (version 2.0.1) 2.0.1
PCR review was conducted by	The Technical Committee of the International EPD System. See www.environdec.com for a list of members. Review chair: Rob Rouwette (chair), Noa Meron (co-chair). The review panel may be contacted via the Secretariat www.environdec.com/support .
Complementary Product Category Rules (c-PCR)	PCR 2019:14-c-PCR-005 Thermal insulation products (EN 16783) (c-PCR to PCR 2019:14) (1.0.0)
c-PCR review was conducted by	The Technical Committee of the International EPD System

Verification

Independent third-party verification of the declaration and data, according to ISO 14025:2006, via	☒ EPD verification through an individual EPD verification ☐ EPD verification through EPD Process Certification* ☐ EPD verification through a fully pre-verified tool
Third-party verifier	IMQ S.p.A.
Accredited by	Accredia
Accredited certification body address	Italy
Procedure for follow-up of data during EPD validity involves third party verifier	☐ Yes ☒ No
*EPD Process Certification involves an accredited certification body certifying and periodically auditing the EPD process and conducting external and independent verification of EPDs that are regularly published. More information can be found in the General Programme Instructions on www.environdec.com.	

Ownership and limitations on use of EPD

Limitations

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.

Ownership

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

INFORMATION ABOUT EPD OWNER

EPD Owner	IVAS SPA
Contact person name	Andrea Cerri
Contact person e-mail	acerri@gruppoivas.com
Organisation address	VIA BELLARIA 40 47030 San Mauro Pascoli Italy
LCA Practitioner	Valentina Giorgetti, v.giorgetti@orizonformazione.it

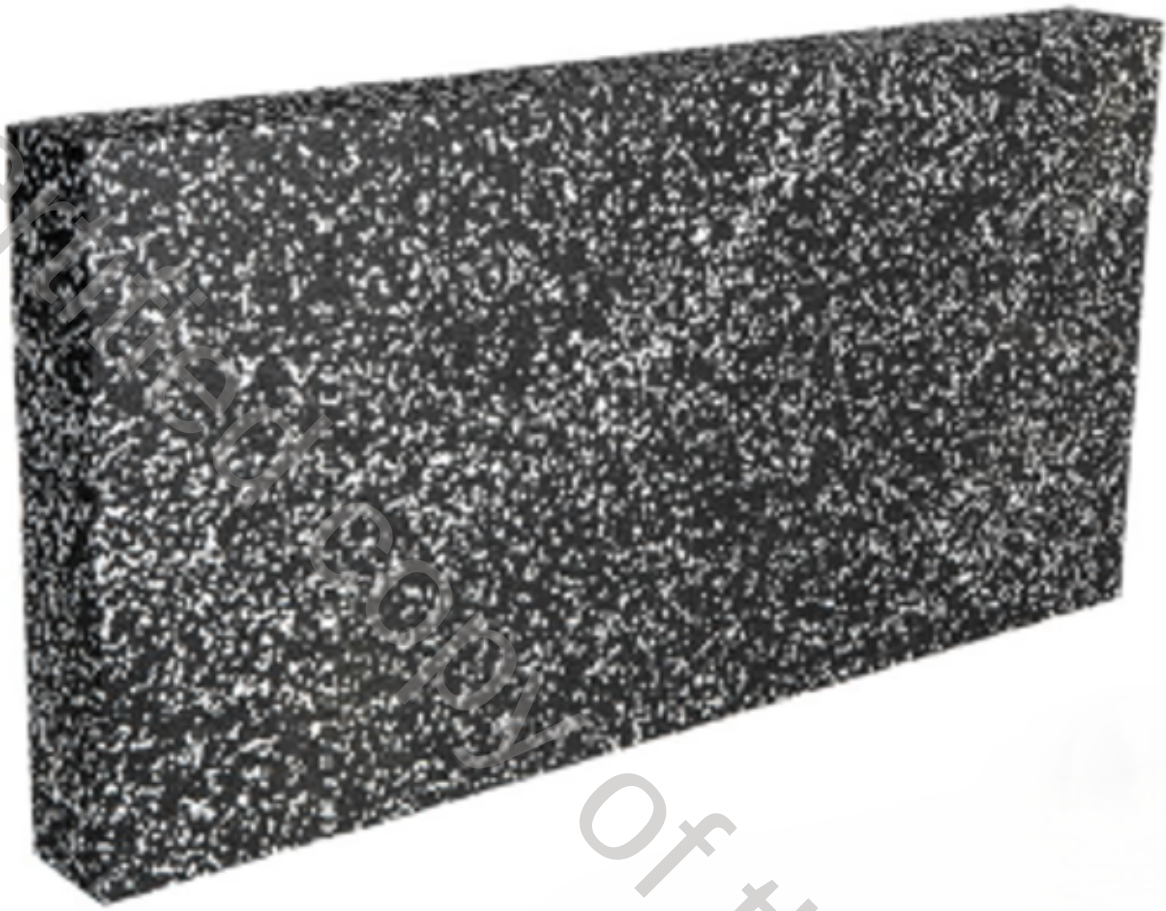
Description of the organisation of the EPD Owner

IVAS EPS+ is a division of IVAS S.p.A. specialized in thermal and energy insulation systems. This division focuses on the development and supply of innovative solutions to improve building energy efficiency, while reducing energy consumption and CO2 emissions.

PRODUCT INFORMATION

Product name	CONVERTO 31 BW
Product identification	Black and white expanded polystyrene (EPS) thermal insulation panel
Product description	Stress-relieved thermal insulation panel made of sintered expanded polystyrene (EPS) with 70% graphite additive, cut from block and suitable for external thermal insulation composite systems (ETICS). Certified ETICS in accordance with EAD 040083-00-0404 (formerly ETAG 004) and UNI EN 13499:2005, and provided with a Certificate of Conformity in accordance with UNI EN 13163. The panels comply with the Italian Minimum Environmental Criteria (CAM) through the use of recycled EPS, as required by the DM 24.11.2025. They are supplied with a product certification issued by an independent third-party assessment body, certifying and guaranteeing the recycled content.
Technical purpose of product	Expanded Polystyrene (EPS) is a thermal insulation material intended for use in building applications as part of the building envelope, such as walls, roofs, and floors. Its technical function is to reduce heat transfer between indoor and outdoor environments by providing thermal resistance within construction assemblies.
Manufacturing or service provision description	Production of EPS panels at the IVAS EPS+ plant in San Mauro Pascoli (Italy) includes the following phases: - mixing of black and white eps beads - pre-expansion of EPS beads; - stabilization, drying, and aging of the pre-expanded material; - molding or block forming of the EPS; - EPS block pressing; - cutting and finishing of the panels; - packaging of the finished product.
Material properties	Area density: 14.5 kg/m² Thickness: 0.12 m
Manufacturing site	Ivas EPS+ Via Vena 47030 San Mauro Pascoli (FC) Italy
UN CPC code	369. Other plastics products
Geographical scope(s)	Europe

PRODUCT IMAGES



CONTENT DECLARATION

Content declaration of multiple products	The EPD covers multiple products (CONVERTO 31 BW, CONVERTO 31 BW FIX, CONVERTO 31 BW MAX) and multiple thicknesses (from 2 cm to 30cm). The EPD is based on a representative product (Converto 31 BW, thickness 12cm)
Hazardous and toxic substances	The product does not contain any substances from the SVHC candidate list in concentrations exceeding 0.1% of its weight.

PRODUCT CONTENT				
Content name	Mass, kg	Post-consumer recycled material, mass-% of product	Biogenic material, mass-% of product	Biogenic material ¹ , kg C/product
Virgin expandable white polystyrene (EPS) beads	0.3	0	0	0
Virgin expandable gray polystyrene (EPS) beads	0.55	0	0	0
PCM expandable gray polystyrene (EPS) beads	0.15	0.15	0	0
Total	1	0.15	0	0
Note 1	1 kg biogenic carbon is equivalent to 44/12 kg of CO ₂			

PACKAGING MATERIALS			
Material name	Mass, kg	Mass-% (versus the product)	Biogenic material ¹ , kg C/product
Plastic film	0.031	1	0
Total	0.031	1	0
Note 1	1 kg biogenic carbon is equivalent to 44/12 kg of CO ₂		

LCA INFORMATION

EPD based on declared or functional unit	Functional unit
Functional unit description	m2
Reference flow	Insulation Area: 1 m ²
Conversion factor to mass	0.145
Are infrastructure or capital goods included in any upstream, core or downstream processes?	☐ Yes ☒ No
Data sources used for this EPD	ecoinvent database (general) ecoinvent 3.10 database
LCA Software	SimaPro 10.1
Version of the EN 15804 reference package	EF Reference Package 3.1
Characterisation methods	EN 15804 + A2 (adapted)
Technology description including background system	The product system includes the manufacturing of expanded polystyrene (EPS) insulation boards through pre-expansion of polystyrene beads, aging, moulding or block production, and cutting to final dimensions. The process includes internal handling, packaging, and waste management. Foreground processes cover all on-site manufacturing steps, including energy consumption (electricity and steam), auxiliary materials, and production waste. Background processes include the production of raw materials (polystyrene beads, additives, and blowing agents), electricity generation, steam supply, and transport of inputs to the manufacturing site. These processes are modelled using secondary data from LCA databases compliant with EN 15804 requirements.
Scrap (recycled material) inputs contribution level	Less than 10% of the GWP-GHG results in modules A1-A3 come from scrap inputs

Data quality assessment

Description of data quality assessment and reference years	Primary data used for the core manufacturing processes refer to the reference year 2024 and are based on actual production data collected from the manufacturing site. Secondary data are sourced from recognised LCA databases compliant with EN 15804 (e.g. ecoinvent or equivalent), and refer to recent available datasets representative of European average or specific regional conditions. The data quality is considered good in terms of temporal, geographical, and technological representativeness. Primary data are fully representative of current production conditions, while secondary data reflect state-of-the-art background processes available in the selected LCA database. Data completeness and consistency are ensured according to EN 15804+A2 requirements.
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DATA QUALITY ASSESSMENT					
Process name	Source type	Source	Reference year	Data category	Share of primary data, of GWP-GHG results for A1-A3
Virgin beads transportation	Database	Ecoinvent 3, release 10.1.0.4	2024	Primary data	0.01%
Electricity	Database	Ecoinvent 3, release 10.1.0.4	2024	Primary data	5.4%
Gas	Database	Ecoinvent 3, release 10.1.0.4	2024	Primary data	11.46%
Total share of primary data, of GWP-GHG results for A1-A3					16.87%
Note	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.				

ELECTRICITY USED IN THE MANUFACTURING PROCESS IN A3 (A5 FOR SERVICES)		
Type of electricity mix	Residual electricity mix on the market	
Energy sources	Hydro	0%
	Wind	0.43%
	Solar	6.21%
	Biomass	0.63%
	Geothermal	0%
	Waste	0%
	Nuclear	4.4%
	Natural gas	58.22%

	Coal	22.72%
	Oil	3.76%
	Peat	0%
	Other	3.62%
Climate impact (GWP-GHG):	0.64 kg CO ₂ eq./kWh	

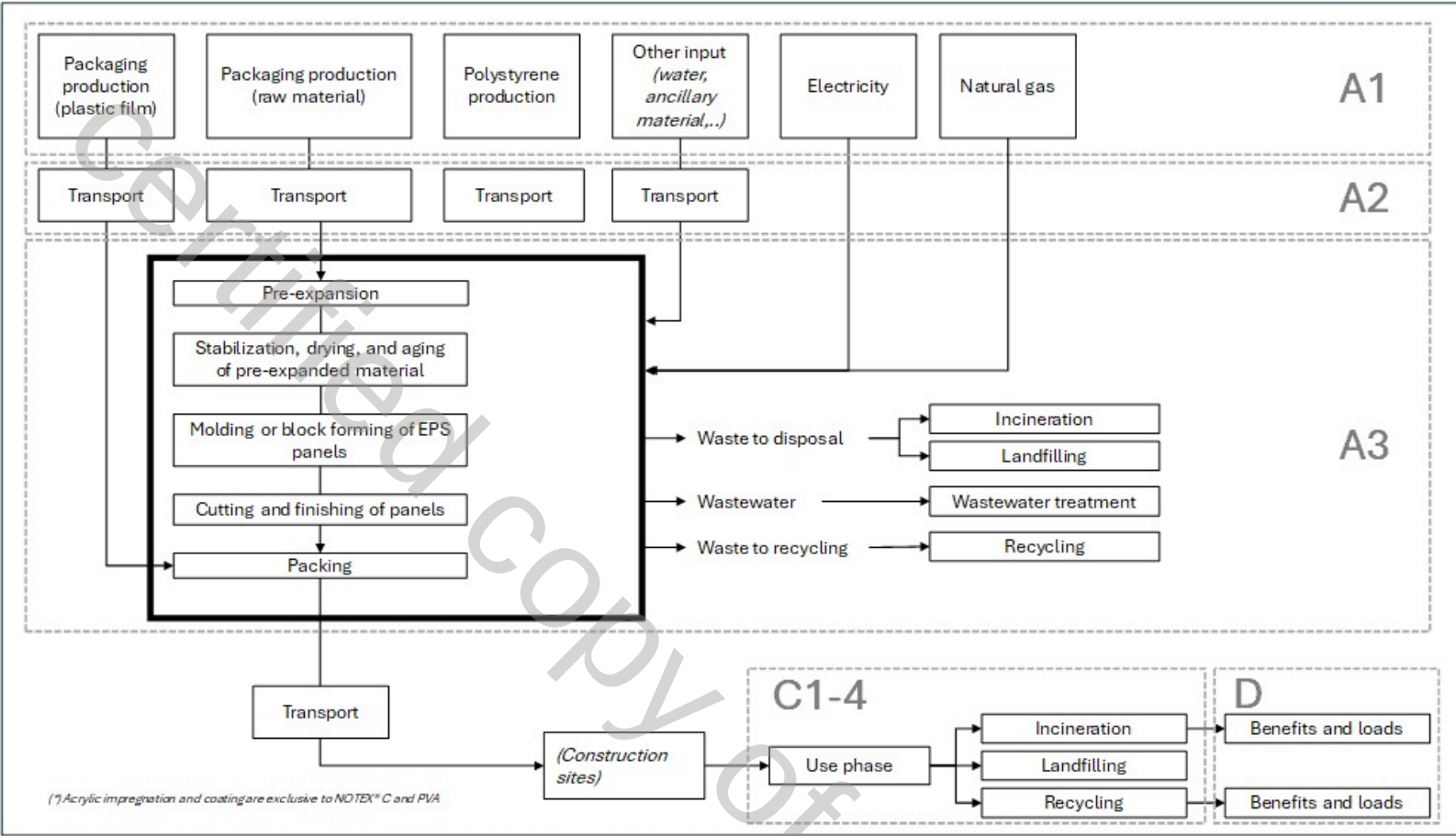
Method used to calculate residual electricity mix	IT residual mix, source AIB (2023)
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SYSTEM BOUNDARY

Description of the System boundary	b) Cradle to gate with options, modules C1-C4, module D and with optional modules (A1-A3 + C + D and additional modules).
Excluded modules	No, there is no excluded module, or there are no excluded modules

	Product stage			Construction process stage		Use stage							End of life stage				Beyond product life cycle
	Raw material supply	Transport	Manufacturing	Transport to site	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	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	Europe	Europe	Europe	Europe	Europe	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Europe	Europe	Europe	Europe	Europe
Share of specific data	16.87%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation - products	83%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation - sites	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disclaimer	The share of specific/primary data and both variations (products and sites) refer to GWP-GHG results only.																

Process flow diagram(s) related images



DEFAULT SCENARIO

Name of the default scenario	Construction, use (installation) and end-of-life scenario for EPS insulation boards
Description of the default scenario	The scenario covers the transport of EPS insulation boards to the construction site (A4), their installation in building applications (A5), and the end-of-life treatment of the product (C), including transport, waste processing, and final disposal or recovery routes.

Module A4: Transport to the building site

Explanatory name of the default scenario in module A4	Transport to site
Description of the default scenario in module A4	To calculate the impacts of transporting the finished product to the installation site, it was considered that this transport takes place by truck or ship. The countries of destination of the finished product are Italy or Spain, so also at this stage a precise distance was considered.

Module A5: Installation in the building

Explanatory name of the default scenario in module A5	Installation of EPS
Description of the default scenario in module A5	The installation phase has no direct environmental impact as it is done manually. The only accountable impacts, in this case, derive from the plastic film with which the EPS panels are packaged to be shipped and which at this stage is sent for disposal.

Reference service life

Description of the default scenario in reference service life	100 years
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Module C: End-of-life

Explanatory name of the default scenario in module C	End-of-Life
Description of the default scenario in module C	C1: for the demolition/deconstruction phase of the material, the use of a diesel-powered machine with a power of 1,1 kWh per tonne of material was considered, as indicated in table 4 of PCR 2019:14. C2: the distance for transport from the de-installation site to the waste treatment site was considered to be 130 km, as indicated in Table 4 of PCR 2019:14. C3-C4: for the waste treatment phase, different percentages of recycling, energy recovery and landfill disposal were considered, distinguishing them for Italy and Spain on the basis of data from technical literature (UEMEPS study). For Italy a percentage of 8% recycled material, 30% energy recovery and 62% landfill disposal were assumed. For Spain, 6% of the waste material is sent for recycling, 22% for energy recovery and the remaining fraction, 72%, for disposal in landfills.

Module D: Beyond product life cycle

Explanatory name of the default scenario in module D	Benefits and loads
Description of the default scenario in module D	In this phase of the life cycle, the benefit deriving from energy recovery and material recycling was considered, against the impact of the treatment of waste up to the state of secondary raw material.

ADDITIONAL SCENARIO 1

Name of the additional scenario	100% recycling
Description of the additional scenario	Scenario with 100% recycling of the product at EoL

Module A4: Transport to the building site

Description of the additional scenario in module A4	As in default scenario
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Module A5: Installation in the building

Description of the additional scenario in module A5	As in default scenario
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Module C: End-of-life

Description of the additional scenario in module C	Scenario with 100% recycling of the product at EoL
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Module C information	Value	Unit
EPS insulation boards	1	kg

Module D: Beyond product life cycle

Description of the additional scenario in module D	100% material recovery (recycling of EPS)
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Module D information	Value	Unit
Material recovery (recycling of EPS)	EPS	N/A

ADDITIONAL SCENARIO 2

Name of the additional scenario	100% incineration
Description of the additional scenario	100% of the product is incinerated with energy recovery at EoL

Module A4: Transport to the building site

Description of the additional scenario in module A4	As in default scenario
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Module A5: Installation in the building

Description of the additional scenario in module A5	As in default scenario
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Module C: End-of-life

Description of the additional scenario in module C	100% of the product is incinerated with energy recovery at EoL
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Module C information	Value	Unit
Incineration with energy recovery	1	kg

Module D: Beyond product life cycle

Description of the additional scenario in module D	100% material incineration
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ADDITIONAL SCENARIO 3

Name of the additional scenario	100% landfilling
Description of the additional scenario	100% of the product is landfilled at EoL

Module A4: Transport to the building site

Description of the additional scenario in module A4	As in default scenario
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Module A5: Installation in the building

Description of the additional scenario in module A5	As in default scenario
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Module C: End-of-life

Description of the additional scenario in module C	100% of the product is landfilled at EoL
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Module C information	Value	Unit
Landfilling	1	kg

Module D: Beyond product life cycle

Description of the additional scenario in module D	No activity in module D
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ENVIRONMENTAL PERFORMANCE

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 environmental performance indicators according to EN 15804

Impact category	Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Climate change - total	GWP-total	kg CO ₂ eq.	6.90E+0	1.41E-1	7.57E-2	ND	ND	ND	ND	ND	ND	ND	6.91E-4	4.38E-2	2.06E-4	1.76E+0	-4.09E-1
Climate change - fossil	GWP-fossil	kg CO ₂ eq.	6.83E+0	1.41E-1	7.57E-2	ND	ND	ND	ND	ND	ND	ND	6.90E-4	4.38E-2	1.96E-4	1.76E+0	-4.06E-1
Climate change - biogenic	GWP-biogenic	kg CO ₂ eq.	7.23E-2	9.53E-5	4.41E-6	ND	ND	ND	ND	ND	ND	ND	7.54E-8	3.00E-5	9.47E-6	2.14E-4	-3.32E-3
Climate change - land use and land-use change	GWP-luluc	kg CO ₂ eq.	5.23E-4	4.63E-5	5.79E-7	ND	ND	ND	ND	ND	ND	ND	5.99E-8	1.43E-5	7.82E-8	4.15E-6	-6.29E-7
Ozone depletion	ODP	kg CFC-11 eq.	1.02E-7	2.80E-9	3.08E-11	ND	ND	ND	ND	ND	ND	ND	1.06E-11	8.71E-10	3.69E-12	5.87E-10	-4.45E-9
Acidification	AP	mol H ⁺ eq.	2.26E-2	4.75E-4	1.47E-5	ND	ND	ND	ND	ND	ND	ND	6.23E-6	1.37E-4	1.18E-6	2.62E-4	-1.48E-3
Eutrophication aquatic freshwater	EP-freshwater	kg P eq.	3.03E-4	9.36E-6	1.70E-7	ND	ND	ND	ND	ND	ND	ND	2.02E-8	2.92E-6	1.98E-8	2.12E-6	-1.18E-5
Eutrophication aquatic marine	EP-marine	kg N eq.	3.78E-3	1.57E-4	1.39E-5	ND	ND	ND	ND	ND	ND	ND	2.89E-6	4.62E-5	4.34E-7	8.49E-4	-2.24E-4
Eutrophication terrestrial	EP-terrestrial	mol N eq.	4.01E-2	1.71E-3	7.05E-5	ND	ND	ND	ND	ND	ND	ND	3.16E-5	5.02E-4	4.74E-6	1.32E-3	-2.40E-3
Photochemical ozone formation	POCP	kg NMVOC eq.	8.31E-2	7.13E-4	2.22E-5	ND	ND	ND	ND	ND	ND	ND	9.43E-6	2.15E-4	1.51E-6	4.02E-4	-1.29E-3
Depletion of abiotic resources - minerals and metals	ADP-minerals&metals ¹	kg Sb eq.	3.48E-6	4.48E-7	4.11E-9	ND	ND	ND	ND	ND	ND	ND	2.46E-10	1.40E-7	2.38E-10	4.65E-8	-4.23E-8
Depletion of abiotic resources - fossil fuels	ADP-fossil ¹	MJ, net calorific value	1.59E+2	1.98E+0	2.32E-2	ND	ND	ND	ND	ND	ND	ND	9.03E-3	6.15E-1	2.99E-3	3.68E-1	-9.74E+0
Water use	WDP ¹	m ³ world eq. deprived	4.59E+0	8.08E-3	-4.25E-3	ND	ND	ND	ND	ND	ND	ND	1.96E-5	2.52E-3	8.16E-5	-3.19E-3	-3.21E-1
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																
General disclaimer	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/A1-A5 for services).																
Disclaimer 1	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 environmental performance indicators

Impact category	Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Climate change - GWP-GHG	GWP-GHG ¹	kg CO ₂ eq.	6.86E+0	1.41E-1	7.57E-2	ND	ND	ND	ND	ND	ND	ND	6.91E-4	4.38E-2	1.97E-4	1.76E+0	-4.07E-1
Acronyms	GWP-GHG = Global warming potential greenhouse gas.																
General disclaimer	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/A1-A5 for services).																
Disclaimer 1	The GWP-GHG indicator is termed GWP-IOBC/GHG in the ILCD+EPD+ data format. The 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.																

Additional voluntary environmental performance indicators according to EN 15804

Impact category	Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Particulate matter emissions	PM	Disease incidence	2.53E-7	1.10E-8	1.56E-10	ND	ND	ND	ND	ND	ND	ND	1.77E-10	3.44E-9	2.46E-11	2.59E-9	-1.60E-8
Ionizing radiation - human health	IRP ¹	kBq U235 eq.	4.27E-2	2.52E-3	2.68E-5	ND	ND	ND	ND	ND	ND	ND	4.05E-6	7.89E-4	1.83E-5	6.32E-4	-9.82E-5
Eco-toxicity - freshwater	ETP-fw ²	CTUe	1.22E+1	1.06E+0	7.50E-2	ND	ND	ND	ND	ND	ND	ND	2.56E-3	3.30E-1	7.62E-4	2.96E+0	-2.76E-1
Human toxicity - cancer effects	HTP-c ²	CTUh	9.58E-9	1.96E-9	3.15E-11	ND	ND	ND	ND	ND	ND	ND	5.40E-12	6.12E-10	1.17E-12	5.05E-10	-5.84E-11
Human toxicity - non-cancer effects	HTP-nc ²	CTUh	2.41E-8	2.45E-9	3.12E-10	ND	ND	ND	ND	ND	ND	ND	2.23E-12	7.67E-10	1.22E-12	6.30E-9	-7.64E-10
Land-use related impacts/soil quality	SQP ²	Dimensionless	5.11E+0	1.17E+0	2.63E-2	ND	ND	ND	ND	ND	ND	ND	6.35E-4	3.66E-1	3.99E-4	6.48E-1	-7.49E-3
Acronyms	PM = Potential incidence of disease due to particulate matter emissions; IRP = Potential human exposure efficiency relative to U235; ETP-fw = Potential comparative toxic unit for ecosystems; HTP-c = Potential comparative toxic unit for humans; HTP-nc = Potential comparative toxic unit for humans; SQP = Potential soil quality index.																
General disclaimer	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/A1-A5 for services).																
Disclaimer 1	This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.																
Disclaimer 2	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.																

Resource use indicators according to EN 15804

Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PERE	MJ, net calorific value	9.60E-1	3.23E-2	4.05E-4	ND	ND	ND	ND	ND	ND	ND	5.38E-5	1.01E-2	6.20E-4	1.08E-2	-4.63E-2
PERM	MJ, net calorific value	2.42E-1	0.00E+0	0.00E+0	ND	ND	ND	ND	ND	ND	ND	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
PERT	MJ, net calorific value	1.20E+0	3.23E-2	4.05E-4	ND	ND	ND	ND	ND	ND	ND	5.38E-5	1.01E-2	6.20E-4	1.08E-2	-4.63E-2
PENRE	MJ, net calorific value	8.60E+1	1.98E+0	2.32E-2	ND	ND	ND	ND	ND	ND	ND	9.03E-3	6.15E-1	2.99E-3	3.68E-1	-9.74E+0
PENRM	MJ, net calorific value	7.31E+1	0.00E+0	0.00E+0	ND	ND	ND	ND	ND	ND	ND	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
PENRT	MJ, net calorific value	1.59E+2	1.98E+0	2.32E-2	ND	ND	ND	ND	ND	ND	ND	9.03E-3	6.15E-1	2.99E-3	3.68E-1	-9.74E+0
SM	kg	2.64E-1	0.00E+0	0.00E+0	ND	ND	ND	ND	ND	ND	ND	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
RSF	MJ, net calorific value	0.00E+0	0.00E+0	0.00E+0	ND	ND	ND	ND	ND	ND	ND	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
NRSF	MJ, net calorific value	0.00E+0	0.00E+0	0.00E+0	ND	ND	ND	ND	ND	ND	ND	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
FW	m³	1.09E-1	2.67E-4	-9.50E-5	ND	ND	ND	ND	ND	ND	ND	5.77E-7	8.34E-5	2.11E-6	-4.64E-3	-7.53E-3
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 resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water.															
General disclaimer	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/A1-A5 for services).															

Waste indicators according to EN 15804

Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
HWD	kg	5.54E-3	4.88E-5	5.03E-4	ND	ND	ND	ND	ND	ND	ND	8.24E-8	1.52E-5	4.82E-8	1.42E-2	-3.81E-4
NHWD	kg	2.72E-1	9.32E-2	3.04E-2	ND	ND	ND	ND	ND	ND	ND	5.52E-6	2.92E-2	4.93E-6	1.10E+0	-1.41E-3
RWD	kg	1.06E-5	6.27E-7	6.66E-9	ND	ND	ND	ND	ND	ND	ND	9.93E-10	1.96E-7	4.68E-9	1.52E-7	-2.58E-8
Acronyms	HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed.															
General disclaimer	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/A1-A5 for services).															

Output flow indicators according to EN 15804

Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
CRU	kg	0.00E+0	0.00E+0	0.00E+0	ND	ND	ND	ND	ND	ND	ND	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
MFR	kg	0.00E+0	0.00E+0	0.00E+0	ND	ND	ND	ND	ND	ND	ND	0.00E+0	0.00E+0	1.36E-1	0.00E+0	0.00E+0
MER	kg	0.00E+0	0.00E+0	0.00E+0	ND	ND	ND	ND	ND	ND	ND	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
EEE	MJ, net calorific value	0.00E+0	0.00E+0	0.00E+0	ND	ND	ND	ND	ND	ND	ND	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
EET	MJ, net calorific value	0.00E+0	0.00E+0	0.00E+0	ND	ND	ND	ND	ND	ND	ND	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
Acronyms	CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy.															
General disclaimer	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/A1-A5 for services).															

Results of an alternative modelling approach

Description of the scenario/method		100% recycling															
Impact category	Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global warming potential (GWP-GHG)	GWP-GHG	kg CO2 eq.	6.86E+0	1.41E-1	7.57E-2	ND	ND	ND	ND	ND	ND	ND	6.91E-4	4.38E-2	2.51E-3	0.00E+0	-5.21E+0
Acronyms																	
Disclaimers	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 CO2 is set to zero																
General disclaimer	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/A1-A5 for services).																

Results of an alternative modelling approach

Description of the scenario/method		100% Energy recovery															
Impact category	Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global warming potential (GWP-GHG)	GWP-GHG	kg CO2 eq.	6.86E+0	1.41E-1	7.57E-2	ND	ND	ND	ND	ND	ND	ND	6.91E-4	4.38E-2	0.00E+0	5.55E+0	0.00E+0
Acronyms																	
Disclaimers	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 CO2 is set to zero																
General disclaimer	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/A1-A5 for services).																

Results of an alternative modelling approach

Description of the scenario/method		100% Landfill															
Impact category	Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global warming potential (GWP-GHG)	GWP-GHG	kg CO2 eq.	6.86E+0	1.41E-1	7.57E-2	ND	ND	ND	ND	ND	ND	ND	6.91E-4	4.38E-2	0.00E+0	2.13E-1	0.00E+0
Acronyms																	
Disclaimers	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 CO2 is set to zero																

General disclaimer

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/A1-A5 for services).

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ADDITIONAL ENVIRONMENTAL INFORMATION

The recycled material content of “Converto 31 BW” is certified under the ReMade scheme.

The certificate, issued by Istituto Giordano S.p.A. [Accredited Certification Body], confirms a recycled material content of 15%.

This information constitutes complementary data to this EPD and is not included in the LCA results or in the environmental indicators reported above.

Certificate of conformity: N. 326/CP/1

Products:

- Converto 31 BW
- Converto 31 BW Fix
- Converto 31 BW Max

Class identity: C

Composition (applicable to all products):

- Total amount: 15%
- Recycled material post consumer: 15%
- Recovered material: 0%
- By-internal product material: 0%
- By-external product material: 0%

The above values are identical for all listed products.

LCA results of one declared unit product (Modules A-C)

Indicator	Unit	Min	Representative	Max
GWP-total	kg CO2 eq.	1.49E+00	8.92E+00	2.23E+01
GWP-fossil	kg CO2 eq.	1.47E+00	8.85E+00	2.21E+01
GWP-biogenic	kg CO2 eq.	1.21E-02	7.26E-02	1.82E-01
GWP-luluc	kg CO2 eq.	9.82E-05	5.89E-04	1.47E-03
ODP	kg CFC11 eq.	1.77E-08	1.06E-07	2.66E-07
AP	mol H+ eq.	3.92E-03	2.35E-02	5.88E-02
EP-freshwater	kg P eq.	5.29E-05	3.18E-04	7.94E-04
EP-marine	kg N eq.	8.08E-04	4.85E-03	1.21E-02

EP-terrestrial | mol N eq. | 7.28E-03 | 4.37E-02 | 1.09E-01
 POCP | kg NMVOC eq. | 1.41E-02 | 8.45E-02 | 2.11E-01
 ADP-minerals & metals | kg Sb eq. | 6.87E-07 | 4.12E-06 | 1.03E-05
 ADP-fossil | MJ | 2.70E+01 | 1.62E+02 | 4.05E+02
 WDP | m³ world eq. deprived | 7.65E-01 | 4.59E+00 | 1.15E+01
 GWP-GHG | kg CO₂ eq. | 1.48E+00 | 8.88E+00 | 2.22E+01

INFORMATION RELATED TO EPDS OF MULTIPLE PRODUCTS

Justification for why this is representative	The EPD is based on a representative product named Converto 31 BW that is 12 cm thickness. Although the best-selling product was the one with a thickness of 14 cm in the reference period, the company chose to conduct the study on the thickness of 12 cm to ensure comparability of environmental results between the LCA report of the CONVERTO 31 G PLUS product, CONVERTO 31 BW and the CONVERTO 35-100.
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ABBREVIATIONS

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

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

m³ – 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

CO₂ eq. – Carbon Dioxide Equivalents

kg C – Kilograms of Carbon

kg CO₂ eq. – Kilograms of Carbon Dioxide Equivalent

ND – Not Declared

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REFERENCES

- a) General Programme Instructions of International EPD System. Version 5.0.1
- b) PCR 2019:14. Version 2.0.1 valid until: 2030-04-07
- c) 2019:14-c-PCR-005 Thermal insulation products (EN 16783) (c-PCR to PCR 2019:14) 1.0.0
- d) EN+15804-2012+A2-2019
- e) EN+15804-2012+A2-2019+AC+2021
- f) ISO 14025:2006
- g) Report LCA "LCA Report Life cycle study of the EPS panel of the product family CONVERTO 31 BW with thickness range from 2 to 30 cm", version02

VERSION HISTORY

2026-03-12

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