ENVIRONMENTAL PRODUCT DECLARATION (EPD)

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

URSA AIR Manta Zero IN M8703 / URSA AIR Manta Zero IN InCare M8703 / AIR32GT

25, 40 mm

R= 0.78, 1.25 m^2·K/W

Owner: URSA INSULATION S.A

Programme: The International EPD® System, www.environdec.com

Programme operator: EPD International AB

EPD registration number: S-P-08141

Publication date: 2023-01-18

Valid until: 2028-01-17

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

1. General information

1.1. Programme information

EPD Owner: URSA Insulation. Paseo de Recoletos 3, 28004 Madrid (Spain)
Programme used: The International EPD® System. www.environdec.com
info@environdec.com
EPD prepared by: Silvia Herranz (URSA Insulation)
Contact: silvia.herranz@etexgroup.com
Date of issue: 18-01-2023 **Valid:** 17-01-2028

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+A2 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): *PCR 2019:14. Construction products (EN 15804+A2) Version 1.11. C-PCR-005 Thermal insulation products (EN 16783:2017) Version: 2019-12-20*
PCR review was conducted by: The Technical Committee of the International EPD® System. See www.environdec.com/TC for a list of members. Review chair: Claudia A. Peña. The review panel may be contacted via the Secretariat 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: Marcel Gómez Ferrer, Marcel Gómez Consultoría Ambiental S.L Email: info@marcelgomez.com Approved by: The International EPD® System
Procedure for follow-up of data during EPD validity involves third party verifier: ☒ Yes ☐ No

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

EPDs within the same product category but from different programmes 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.

2. Company information

Owner of the EPD: URSA Insulation S.A.

Contact: Silvia Herranz (Sustainability & Technical Manager) (silvia.herranz@etexgroup.com)

Description of the organization:

URSA is a company dedicated to the manufacture and commercialization of thermal and acoustic insulation materials oriented towards sustainability and energy efficiency in building. URSA is one of the leading mineral wool and extruded polystyrene (XPS) manufacturers in Europe.

Product-related or management system-related certifications:

PLA plant is covered by EPD process certification system, are certified ISO 9001, ISO 14001, and it has Type I environmental labels ISO 14024

Name and location of production site(s): PLA (Spain) Carretera Vila-Rodona KM 6.7 ES 43810 El Pla de Santa Maria (Tarragona)

3. Product information

This Environmental Product Declaration (EPD) describes the environmental impacts of 1m² glass wool insulation, thickness 25 and 40 mm and R-value 0.78 and 1.25 $m^2 \cdot K/W$ respectively.

URSA manufactures glass wool using natural and plentiful raw materials (sand) or recycled materials (Cullet) in a fusion and fiber formation process. The products obtained are presented in the form of a "mineral wool mattress" composed of a flexible airy structure.

Thanks to their intertwined structure, mineral wools (glass wool or stone wool) are porous materials which trap air, thus providing an insulation solution. The porous and elastic structure of the mineral wool also absorbs aerial noise, impact sounds and enables acoustic correction inside buildings and premises. Finally, as they are based on naturally incombustible minerals, mineral wools are incombustible and do not propagate fire.

Insulation with mineral wool (glass wool) is used in buildings and in industrial installations. It ensures a high level of comfort, reduces energy costs, reduces carbon dioxide emissions (CO_2), prevents heat loss through sloping roofs, walls, ceilings, pipes, and boilers, reduces sound pollution and protects houses and industrial installations from risk of fire.

The service life of a glass wool product is like that of a building, as it is a component of that installation (often established at 50 years).

UN CPC code: 37990 Non-metallic mineral products N.E.C (including mineral wool, expanded mineral materials, worked mica, articles of mica, non-electrical articles of graphite or other carbon and articles of pear)

Geographical scope: The product is manufactured in Spain. The product is marketed mainly in Europe.

Product name: URSA AIR Manta Zero IN M8703 / URSA AIR Manta Zero IN InCare M8703 / AIR32GT

Product identification: URSA TERRA mineral wool panel in accordance with the UNE EN 14303 standard, non-hydrophilic, with facing. Supplied in roll and panel format.

Functional unit: *Thermal insulation over 1 m^2 of enclosure for the application of interior wall insulation that guarantees the following thermal resistance:*

Thickness (mm)	R -Value (m²·K/W)
25	0.78
40	1.25

Technical data and physical characteristics*:*

Parameters	Unit	Test method		Value	
Thickness	mm			25	40
R-value	m²·K/W		10ºC	0.78	1.25
Thermal Conductivity	W/(m.K)	EN 12667 EN 12939	10ºC	0.032	0.032
			24ºC	0.034	0.034
			40ºC	0.036	0.036
			60ºC	0.038	0.038
Fire reaction	Euroclase	EN 13501-1		A2-s1,d0	A2-s1,d0
Sound absorption coefficient (Aw)				0.55	
Thickness tolerance		EN 823		T3	T3
Reference standard to declare the efficacy of the product	EN 14303				
Designation code CE	MW-EN 14303-T3				
Certificate	(AENOR 020/003462)				
Application	Thermal insulation in Building / Metallic duct lining, for thermal and acoustic insulation.				

Description of the main components of the glass wool product:

Product components	Weight, kg/m²		Post-consumer material, weight-%
Thickness, mm	25	40	
Glass wool	0.750	1.200	35%
Facing	0.105	0.105	0
TOTAL	0.855	1.305	35%

Packaging components	weight, kg/m²	
Thickness, mm	25	40
Plastic Packaging	0.005	0.009
Wood Pallet	0.051	0.081
TOTAL	0.057	0.089
Weight-% (versus the product)	7%	7%

4. LCA Information

Functional unit / declared unit: It performs the function of thermal isolation on 1 m2 de wall ensuring thermal resistance of 0.78 and 1.25 m²·K/W for application Insulation (Glass wool 0.750-1.200 kg/m²) of interior walls.

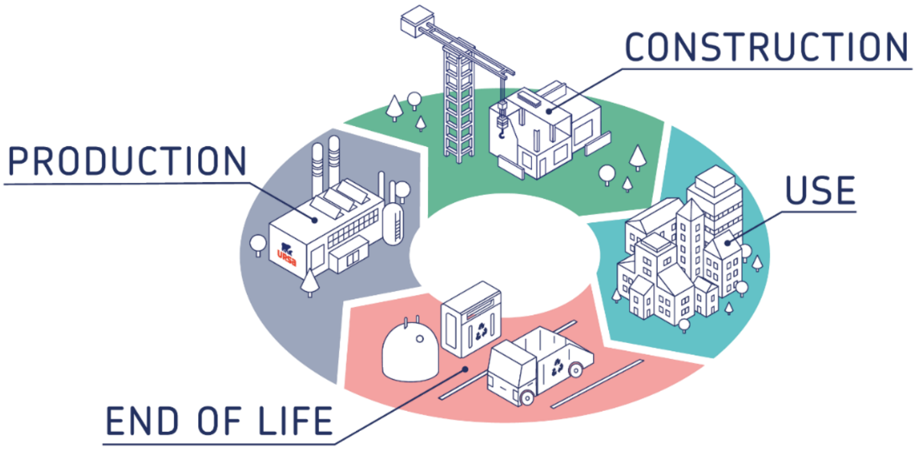
Reference service life: 50 years

Time representativeness: Plant production data for the complete year 2020.

Database(s) and LCA software used: ECOINVENT 3.6, EuGeos' 15804+A2_IA v4.1, OPENLCA 1.10.3 (2020)

Description of system boundaries:

Cradle to grave and module D (A + B + C + D)



Main hypotheses and considerations:

The polluter pays principle, the principle of modularity, and study exclusions (long-term emissions, infrastructure processes, and staff travel) have been considered.

Cutt-off rules:

In the case that there is not enough information, the process energy and materials representing less than 1% of the whole energy and mass used can be excluded (if they do not cause significant impacts). The addition of all the inputs and outputs excluded cannot be bigger than the 5% of the whole mass and energy used, as well of the emissions to environment occurred

Description of the data quality used:

All the raw materials for the manufacture of the declared product, the necessary energy, the water, the consumption, and the resulting emissions are considered in the life cycle analysis of this material in its two formats, panel and roll. The production data of the Pla de Santa Maria factory, for the full year 2020, have been used. The allocations of consumption, emissions and raw materials have been made based on physical criteria of the mass of glass.

The Ecoinvent 3.6 and EuGeos' 15804+A2_IA v4.1 databases have been used to choose the most representative processes, considering that the data is representative of technological development, regionalized data and as current as possible. These data have been treated in the OpenLCA 1.10.3 software for LCA modeling and the calculation of environmental impact categories, complying with the quality requirements established in the RCP.

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

Phases and modules of life cycle taken into account

	Production phase	Construction phase		Use phase							End of life phase				
Module	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Energy use	B7 Use of water	C1 Deconstruction / demolition	C2 Transport	C3 Waste treatment	C4 Removal	D Benefits and loads beyond the limits of the system
Module declared	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Geography	Spain	Spain	Global	Global	Global	Global	Global	Global	Global	Global	Global	Global	Global	Global	Global
Specific data used	>90% GWP	>90% GWP	>90% GWP												
Variation - Products	No variability	No variability	No variability												
Variation - Sites	Only plant	Only plant	Only plant												

A1-A3 Production phase

Description of the phase:

The production phase of mineral wool products is divided into three modules: A1, supply of raw materials; A2, transport and A3, manufacture.

The addition of modules A1, A2 et A3 is an option provided by standard EN 15804+A2 and has been applied to this EPD.

A1 Supply of raw materials

This module considers the supply and processing of all raw materials and the energies they produce prior to the manufacturing process. In particular, it covers supply of raw materials for manufacturing the binding and glass fibers, such as sand. In addition to these raw materials, recycled materials (cullet) are used in the process.

A2 Transport to manufacturer

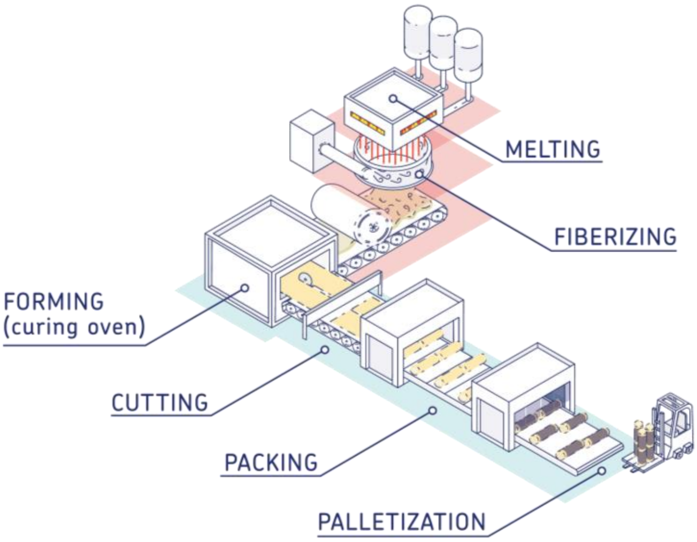
Raw materials are transported to the manufacturing site. The modelling includes road, river or rail transport (average values) for each of the raw materials.

A3 Manufacturing

Glass wool manufacture includes stages of fusion and fibre formation (see diagram of manufacturing process). Furthermore, production of packaging is considered during this phase.

A certified 100% renewable mix has been used.

System Diagram:



A4-A5 Construction phase

Description:

The construction phase is divided into two modules: A4, transport to the construction site and A5, installation in the building.

Description of the scenarios and supplementary technical information.

A4 Transporte hasta la obra:

This module includes transport from factory to site. Average value of Spain.

The transport is calculated based on a scenario that includes the following parameters:

Parameter	Value
Type of fuel and consumption of the vehicle or type of vehicle used for the transport for example, long distance lorry, boat, etc.	The vehicle runs on diesel, its emission standard is classified as EURO5 and it falls under the truck size class of 7.5 to 16 metric tons
Average distance to site	Lorry: 460 km
Use of capacity (including returning empty)	100 % volume capacity
Density of transported product	248.4-388.8 m^2 per pallet and 22 pallets per lorry Density of product = 30 kg/m^3
Coefficient of use of volume capacity	>1 (products compressed in the packaging)

A5 Installation in the building:

This module includes the waste products created during manual installation of the mineral wool in the building, supplementary production required to compensate losses and treatment of site waste. The scenarios used for the quantity of waste generated during the installation and the treatment of the site waste are as follows:

Parameter	Value
Ancillary inputs for installation (specified by material)	No ancillary inputs
Use of water	No water used
Use of other resources	No other resources
Quantitative description of the type of energy (regional mix) and consumption during the installation process	No energy required
Waste produced on the construction site prior to waste treatment generated by installation of the product (specified by type)	2 % of glass wool
Materials (specified by type) produced by waste treatment on the construction site, for example collection with a view to recycling, recovery of energy, disposal (specified by channel)	All glass wool waste, its packaging and waste deriving from excess production for installation are considered as disposed of in landfill 72-113 gr/UF
Transport to landfill	15 km
Direct emissions to atmosphere, soil and water	No emissions to be considered

B1-B7 Phase of use or exploitation (Excluding potential savings)

Phase of use is divided into seven modules:

- B1: Use or application of product installed
- B2: Maintenance
- B3: Repair
- B4: Replacement
- B5: Refurbishment
- B6: Energy needs during exploitation phase
- B7: Water needs during exploitation phase

Description of the scenarios and supplementary technical information.

No technical operation is required during the useful phase until the end of service life. Thus mineral wools do not have any impact during this phase but they permit potential energy savings.

C1-C4 End of life phase

Description:

This phase includes the different modules of the end of service life as follows: C1, deconstruction, demolition; C2, transport to waste treatment; C3, waste treatment with a view to their reuse, recovery and/or recycling; C4, disposal.

Description of the scenarios and supplementary technical information.

C1 Deconstruction, demolition:

Deconstruction and /or dismantling of the insulation products is part of the demolition work of an entire building. In our case the environmental impact is considered to be very slight and can be ignored.

C2 Transport to waste treatment site:

The use of the model for transport is considered (see A4, transport to the construction site) at a distance of 15 km.

C3 Waste treatment with a view to reuse, recovery, and/or recycling:

The product is considered for landfill without reuse, recovery and/or recycling.

C4 Disposal:

Glass wool should be installed in a storage facility for non-inert and non-hazardous waste

Parameter	Value
Collection procedure specified by type	0.750-1.200 kg of glass wool (collected with mixed construction waste)
Recovery system specified by type	No reuse, no recycling, no energy recovery
Disposal specified by type	0.750-1.200 kg of glass wool kept in storage facility for non-inert and non-hazardous waste
Hypotheses for creating scenarios (for example transport)	100% Landfill

D Benefit and charge (refer to standard)

There are no recycling benefits since 100% of the weight of the product and its packaging is considered landfilled.

5. Content information

For the functional unit “1m² of glass wool insulation with a thickness of 25 and 40 mm and thermal resistance of 0.78 and 1.25 $m^2 \cdot K/W$ respectively”.

Estimated impact results are only relative statements that do not indicate impact category endpoints, exceeding threshold values, safety margins, or risks.

Results for 1m² of glass wool insulation with a thickness of 25 mm and thermal resistance of 0.78 $m^2 \cdot K/W$:

Potential environmental impact – mandatory indicators according to EN 15804

Results per functional or declared unit

		Production phase	Construction phase		Use phase							End of life phase				
Indicator	Unit	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Energy use	B7 Use of water	C1 Deconstruction / demolition	C2 Transport	C3 Waste treatment	C4 Removal	**D Benefits and loads beyond the limits of the system**
GWP-fossil	kg CO_2 eq.	2.12E+00	7.39E-02	4.39E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.85E-03	0.00E+00	3.95E-03	0.00E+00
GWP-biogenic	kg CO_2 eq.	-9.68E-02	1.52E-04	-1.88E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.28E-06	0.00E+00	1.13E-05	0.00E+00
GWP-luluc	kg CO_2 eq.	1.20E-03	3.47E-05	2.75E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.35E-07	0.00E+00	3.65E-06	0.00E+00
GWP-total	kg CO_2 eq.	2.02E+00	7.41E-02	4.21E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.86E-03	0.00E+00	3.96E-03	0.00E+00
ODP	kg CFC 11 eq.	3.70E-07	1.66E-08	7.52E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.32E-10	0.00E+00	1.60E-09	0.00E+00
AP	mol H^+ eq.	8.73E-03	2.94E-04	1.84E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.38E-06	0.00E+00	3.71E-05	0.00E+00
EP-freshwater	kg PO_4^{3-} eq.	1.01E-03	1.72E-05	2.49E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-07	0.00E+00	1.12E-06	0.00E+00
EP-freshwater	kg P eq.	3.29E-04	5.59E-06	8.10E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.21E-07	0.00E+00	3.65E-07	0.00E+00
EP-marine	kg N eq.	2.07E-03	8.57E-05	4.31E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.24E-06	0.00E+00	1.29E-05	0.00E+00
EP-terrestrial	mol N eq.	2.23E-02	9.34E-04	4.63E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.53E-05	0.00E+00	1.41E-04	0.00E+00
POCP	kg NMVOC eq.	6.62E-03	2.81E-04	1.37E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.92E-06	0.00E+00	4.01E-05	0.00E+00
ADP-minerals&metals*	kg Sb eq.	1.10E-04	3.23E-07	2.20E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.24E-09	0.00E+00	8.50E-09	0.00E+00
ADP-fossil*	MJ	6.56E+00	9.50E-02	1.46E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.12E-03	0.00E+00	8.26E-03	0.00E+00
WDP*	m^3	1.07E+00	5.99E-03	2.27E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.35E-04	0.00E+00	5.08E-03	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 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 functional or declared unit

		Production phase	Construction phase		Use phase							End of life phase				
Indicator	Unit	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Energy use	B7 Use of water	C1 Deconstruction / demolition	C2 Transport	C3 Waste treatment	C4 Removal	D Benefits and loads beyond the limits of the system
GWP-GHG[1]	kg CO_2 eq.	2.07E+00	7.33E-02	4.30E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.84E-03	0.00E+00	3.88E-03	0.00E+00

Use of resources

Results per functional or declared unit

		Production phase	Construction phase		Use phase							End of life phase				
Indicator	Unit	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Energy use	B7 Use of water	C1 Deconstruction / demolition	C2 Transport	C3 Waste treatment	C4 Removal	D Benefits and loads beyond the limits of the system
PERE	MJ	9.36E-01	1.39E-02	2.42E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.00E-04	0.00E+00	6.38E-04	0.00E+00
PERM	MJ	1.60E+00	4.72E-03	3.27E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.83E-05	0.00E+00	3.02E-04	0.00E+00
PERT	MJ	2.53E+00	1.86E-02	5.70E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.98E-04	0.00E+00	9.40E-04	0.00E+00
PENRE	MJ	1.43E+01	1.23E-01	3.17E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.71E-03	0.00E+00	9.37E-03	0.00E+00
PENRM	MJ.	2.93E+01	9.92E-01	5.96E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.57E-02	0.00E+00	1.02E-01	0.00E+00
PENRT	MJ	4.37E+01	1.12E+00	9.13E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.84E-02	0.00E+00	1.11E-01	0.00E+00
SM	kg	4.37E-01	1.36E-03	9.14E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.85E-05	0.00E+00	5.96E-05	0.00E+00
RSF	MJ	1.86E-02	4.14E-04	5.95E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.50E-06	0.00E+00	1.05E-05	0.00E+00
NRSF	MJ	3.27E-02	1.80E-03	8.07E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.45E-05	0.00E+00	1.51E-05	0.00E+00
FW	m^3	2.57E-02	1.43E-04	5.43E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.22E-06	0.00E+00	1.19E-04	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															

[1] 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 almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Waste production and output flows

Waste production

Results per functional or declared unit																
		Production phase	Construction phase		Use phase							End of life phase				D Benefits and loads beyond the limits of the system
Indicator	Unit	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Energy use	B7 Use of water	C1 Deconstruction / demolition	C2 Transport	C3 Waste treatment	C4 Removal	
Hazardous waste disposed	kg	1.16E+00	2.91E-02	3.06E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.25E-04	0.00E+00	1.82E-03	0.00E+00
Non-hazardous waste disposed	kg	1.05E+00	4.62E-02	3.61E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.44E-03	0.00E+00	7.51E-01	0.00E+00
Radioactive waste disposed	kg	4.66E-03	2.47E-05	1.03E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.62E-07	0.00E+00	1.40E-06	0.00E+00

Output flows

Results per functional or declared unit																
		Production phase	Construction phase		Use phase							End of life phase				D Benefits and loads beyond the limits of the system
Indicator	Unit	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Energy use	B7 Use of water	C1 Deconstruction / demolition	C2 Transport	C3 Waste treatment	C4 Removal	
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling	kg	3.75E-02	1.15E-03	1.12E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.37E-05	0.00E+00	3.79E-05	0.00E+00
Materials for energy recovery	kg	4.71E-03	3.00E-04	9.69E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.53E-06	0.00E+00	2.10E-05	0.00E+00
Exported energy, electricity	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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	0.094

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

Results for 1m² of glass wool insulation with a thickness of 40 mm and thermal resistance of 1.25 $m^2 \cdot K/W$:

Potential environmental impact – mandatory indicators according to EN 15804

Results per functional or declared unit																
		Production phase	Construction phase		Use phase							End of life phase				D Benefits and loads beyond the limits of the system
Indicator	Unit	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Energy use	B7 Use of water	C1 Deconstruction / demolition	C2 Transport	C3 Waste treatment	C4 Removal	
GWP-fossil	kg CO_2 eq.	2.39E+00	1.18E-01	5.03E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.96E-03	0.00E+00	6.32E-03	0.00E+00
GWP-biogenic	kg CO_2 eq.	-1.53E-01	2.42E-04	-2.98E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.25E-06	0.00E+00	1.81E-05	0.00E+00
GWP-luluc	kg CO_2 eq.	1.49E-03	5.56E-05	3.56E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.18E-06	0.00E+00	5.83E-06	0.00E+00
GWP-total	kg CO_2 eq.	2.23E+00	1.19E-01	4.73E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.97E-03	0.00E+00	6.34E-03	0.00E+00
ODP	kg CFC 11 eq.	4.45E-07	2.66E-08	9.08E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.92E-10	0.00E+00	2.56E-09	0.00E+00
AP	mol H^+ eq.	1.02E-02	4.70E-04	2.19E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.50E-05	0.00E+00	5.94E-05	0.00E+00
EP-freshwater	kg PO_4^{3-} eq.	1.35E-03	2.74E-05	3.44E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.96E-07	0.00E+00	1.79E-06	0.00E+00
EP-freshwater	kg P eq.	4.39E-04	8.94E-06	1.12E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.94E-07	0.00E+00	5.83E-07	0.00E+00
EP-marine	kg N eq.	2.33E-03	1.37E-04	4.95E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.18E-06	0.00E+00	2.07E-05	0.00E+00
EP-terrestrial	mol N eq.	2.54E-02	1.49E-03	5.33E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.65E-05	0.00E+00	2.26E-04	0.00E+00
POCP	kg NMVOC eq.	7.60E-03	4.49E-04	1.59E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.59E-05	0.00E+00	6.42E-05	0.00E+00
ADP-minerals&metals*	kg Sb eq.	1.56E-04	5.18E-07	3.15E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.99E-09	0.00E+00	1.36E-08	0.00E+00
ADP-fossil*	MJ	8.78E+00	1.52E-01	2.00E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.40E-03	0.00E+00	1.32E-02	0.00E+00
WDP*	m^3	1.42E+00	9.58E-03	3.04E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.16E-04	0.00E+00	8.12E-03	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 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 functional or declared unit

		Production phase	Construction phase		Use phase							End of life phase				
Indicator	Unit	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Energy use	B7 Use of water	C1 Deconstruction / demolition	C2 Transport	C3 Waste treatment	C4 Removal	D Benefits and loads beyond the limits of the system
GWP-GHG[2]	kg CO_2 eq.	2.33E+00	1.17E-01	4.91E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.94E-03	0.00E+00	6.20E-03	0.00E+00

Use of resources

Results per functional or declared unit

		Production phase	Construction phase		Use phase							End of life phase				
Indicator	Unit	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Energy use	B7 Use of water	C1 Deconstruction / demolition	C2 Transport	C3 Waste treatment	C4 Removal	D Benefits and loads beyond the limits of the system
PERE	MJ	1.14E+00	2.22E-02	3.16E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.79E-04	0.00E+00	1.02E-03	0.00E+00
PERM	MJ	2.45E+00	7.56E-03	5.03E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.57E-04	0.00E+00	4.83E-04	0.00E+00
PERT	MJ	3.59E+00	2.98E-02	8.19E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.37E-04	0.00E+00	1.50E-03	0.00E+00
PENRE	MJ	1.72E+01	1.96E-01	3.91E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.34E-03	0.00E+00	1.50E-02	0.00E+00
PENRM	MJ.	3.59E+01	1.59E+00	7.33E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.11E-02	0.00E+00	1.63E-01	0.00E+00
PENRT	MJ	5.30E+01	1.78E+00	1.12E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.55E-02	0.00E+00	1.78E-01	0.00E+00
SM	kg	6.82E-01	2.17E-03	1.43E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.56E-05	0.00E+00	9.53E-05	0.00E+00
RSF	MJ	2.36E-02	6.62E-04	8.28E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.36E-05	0.00E+00	1.68E-05	0.00E+00
NRSF	MJ	3.72E-02	2.87E-03	9.89E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.52E-05	0.00E+00	2.42E-05	0.00E+00
FW	m^3	3.38E-02	2.28E-04	7.22E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.15E-06	0.00E+00	1.90E-04	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															

[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 almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Waste production and output flows

Waste production

Results per functional or declared unit

Indicator	Unit	Production phase	Construction phase		Use phase							End of life phase				D Benefits and loads beyond the limits of the system
		A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Energy use	B7 Use of water	C1 Deconstruction / demolition	C2 Transport	C3 Waste treatment	C4 Removal	
Hazardous waste disposed	kg	1.40E+00	4.65E-02	3.99E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.99E-04	0.00E+00	2.91E-03	0.00E+00
Non-hazardous waste disposed	kg	1.06E+00	7.40E-02	4.54E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.31E-03	0.00E+00	1.20E+00	0.00E+00
Radioactive waste disposed	kg	4.87E-03	3.95E-05	1.12E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.99E-07	0.00E+00	2.23E-06	0.00E+00

Output flows

Results per functional or declared unit

Indicator	Unit	Production phase	Construction phase		Use phase							End of life phase				D Benefits and loads beyond the limits of the system
		A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Energy use	B7 Use of water	C1 Deconstruction / demolition	C2 Transport	C3 Waste treatment	C4 Removal	
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling	kg	4.63E-02	1.84E-03	1.52E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.79E-05	0.00E+00	6.06E-05	0.00E+00
Materials for energy recovery	kg	5.21E-03	4.80E-04	1.09E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.04E-05	0.00E+00	3.36E-05	0.00E+00
Exported energy, electricity	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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	0.148

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

6. Additional Information

Emissions in the indoor air:

The health classification of the product URSA AIR Manta Zero IN M8703 / URSA AIR Manta Zero IN InCare M8703 / AIR32GT is A+ according to the French order of 19 April 2011 on labelling of construction documents or wall or floor coverings, and paints and varnishes, regarding their emissions and volatile pollutants.

EUCEB:

Mineral wool fibers have been exempted from carcinogenic classification according to: Regulation on classification and labelling of substances and mixtures Regulation (EC) n° 1272/2008 and its last update Regulation (EU) nº 2021/643. They have in fact successfully passed the tests established by this Regulation and their biopersistance is lower than the values defined in note « Q » of this text. This exemption is certified by the European CErtification Board (EUCEB - www.euceb.org).

The EUCEB certifies that fibers conform to note « Q » of the Regulation (EC) n° 1272/2008. The EUCEB guarantees that the exemption tests have been executed in conformance with European protocols, that industrial entities have control procedures in place during manufacture of the products, and that third parties inspect and approve the results.

The industrial entities in respect of EUCEB undertake as follows:

- To provide a test report compiled by a EUCEB recognized laboratory providing proof that the fibers satisfy one of the four exemption conditions established in note « Q » of Regulation (EC) n° 1272/2008,
- Twice yearly, to undergo production inspection by an independent third party recognized by EUCEB (sample taking and conformance with initial chemical analysis),
- To set up internal control procedures in each factory.

The products with this certification are recognizable as they have the EUCEB logo affixed to their packaging

REACH:

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

The glass wool products (rolls and boards) manufactured by URSA are defined as “articles” according to the article 3 (3) of EC Regulation 1907/2006 (REACH). Articles, whose functionality is more determinate by the shape, surface or design given in their production process, than by its chemical composition.

There, according to Art. 2 of EC Regulation 1907/2006 (REACH) our articles are excluded from the EC Regulation 1907/2006 (REACH).

Our products do not contain Substances of Very High Concern (SVHC) in a higher concentration than 0,01 % by weight according to the last update of the candidate list know at the date this document was issued.

ECHA-European Chemicals Agency regularly published an update SHVC list. The validity of this statement is therefore of ECHA new publications.

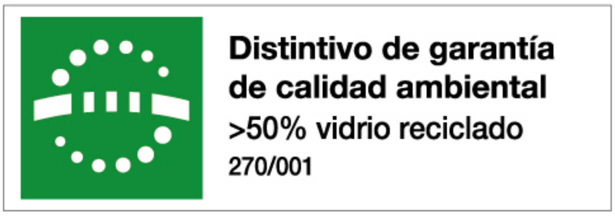
Circular Economy:

Recycled Glass Content:

The Environmental Quality Guarantee Distinction is a Catalan ecological labeling system that recognizes products and services that exceed certain environmental quality requirements beyond those established as mandatory by current regulations.

URSA obtained the Environmental Quality Guarantee Distinction, for the first time in 2008, of more than 35% recycled glass by 2020.

In 2021, The Generalitat de Catalunya certifies that the percentage of recycled glass material in glass wool is 50%.



Sorting info label for the packging

The Article 17 of the French AGEC Law and Decree no. 2021-835 of 29 June 2021, says that a new mandatory harmonised sorting label to the household packaging should be implemented to contribute to recycling and circular economy. The aim is to provide consumers with the information they need and ensure that the producers are in compliance with the new regulatory requirements.

European Waste Codes

Waste glass wool in the module A5 and C will be classified according to the European Waste Codes:

17 06 04 insulation materials other than those mentioned in 17 06 01 and 17 06 03

7. References

- ISO 14040:2006 Environmental management — Life cycle assessment — Principles and framework

- ISO 14044:2006 Environmental management — Life cycle assessment — Requirements and guidelines

- EN 15804:2012+A2:2019 Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products

- PCR 2019:14-c-PCR-005 c-PCR-005 Thermal Insulation products (EN 16783) (2019-12-20)

- PCR 2012:01-Sub-PCR-I Sub-PCR-I Thermal insulation products (EN 16783) (2021-11-08)

- General Programme Instructions of the International EPD® System. Version 3.01.

- LCA Report (Version 3 – 30.06.2022)