

# Environmental product declaration

In accordance with 14025 and EN15804+A2

ROCKWOOL® Nivell-/Subfloorskiva for the Swedish market (R=1)





The Norwegian EPD Foundation

#### Owner of the declaration:

**ROCKWOOL Nordics** 

#### **Product:**

ROCKWOOL® Nivell-/Subfloorskiva for the Swedish market (R=1)

## **Declared unit:**

1 m2

## This declaration is based on Product Category

CEN Standard EN 15804:2012+A2:2019 serves as core PCR. NPCR Part A Construction products and services.

NPCR 012:2022 Part B for thermal insulation products

#### **EPD Software:**

LCA.no EPD generator ID: 56260

### **Program operator:**

The Norwegian EPD Foundation

## **Declaration number:**

NEPD-3414-2027-EN (56260)

## **Registration number:**

NEPD-3414-2027-EN (56260)

### Issue date:

16.01.2023

## Valid to:

30.12.2027



## **General information**

#### **Product**

ROCKWOOL® Nivell-/Subfloorskiva for the Swedish market (R=1)

#### Program operator:

Post Box 5250 Majorstuen, 0303 Oslo, Norway The Norwegian EPD Foundation Phone: +47 23 08 80 00 web: post@epd-norge.no

#### **Declaration number:**

NEPD-3414-2027-EN (56260)

## This declaration is based on Product Category Rules:

CEN Standard EN 15804:2012+A2:2019 serves as core PCR. NPCR Part A Construction products and services.

NPCR 012:2022 Part B for thermal insulation products

#### Statement of liability:

The owner of the declaration shall be liable for the underlying information and evidence. EPD Norway shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

#### **Declared unit:**

1 m2 ROCKWOOL® Nivell-/Subfloorskiva for the Swedish market (R=1)

## **Declared unit with option:**

A1-A3,A4,A5,C1,C2,C3,C4,D

#### **Functional unit:**

**Functional Unit Comparability:** 

The specific product, referred to in the declared unit is  $1 \text{ m}^2$  ROCKWOOL Nivell-/Subfloorskiva with a thermal resistance R= $1 \text{m}^2$ K/W for the Swedish market. The referenced product is 37 mm thick with a density of  $40 \text{ kg/m}^3$ . The weight of the referenced product corresponding to the declared unit is 1,5 kg.

## General information on verification of EPD from EPD tools:

Independent verification of data, other environmental information and the declaration according to ISO 14025:2010, § 8.1.3 and § 8.1.4. Individualthird party verification of each EPD is not required when the EPD tool is i) integrated into the company's environmental management system, ii) the procedures for use of the EPD tool are approved by EPDNorway, and iii)the process is reviewed annualy. See Appendix G of EPD-Norway's General Programme Instructions for further information on EPD tools.

### **Verification of EPD tool:**

#### Owner of the declaration:

ROCKWOOL Nordics Contact person: Christian J. Kofod Phone: +45 4656 1616 e-mail: info@rockwool.com

#### Manufacturer:

ROCKWOOL Nordics Hovedgaden 501 , DK-2640 Hedehusene Denmark

## Place of production:

ROCKWOOL factories Moss (electrical melter) & Trondheim (conventional melter)

Norway

## Management system:

ISO 14001, ISO 9001

#### **Organisation no:**

CVR nr. 42391719

#### Issue date:

16.01.2023

## Valid to:

30.12.2027

## Year of study:

2021

#### Comparability:

EPD of construction products may not be comparable if they not comply with EN 15804:2012+A2:2019 and seen in a building context.

## **Development and verification of EPD:**

The declaration is created using EPD tool lca.tools ver EPD2022.03, developed by LCA.no. The EPD tool is integrated in the company's management system, and has been approved by EPD Norway.

Developer of EPD:

Simon Titusson

Reviewer of company-specific input data and EPD:

Amalie Leanda Pajbjerg

## Approved:

Independent third party verification of the EPD tool, background data and test-EPD in accordance with EPDNorway's procedures and guidelines for verification and approval of EPD tools.

Third party verifier:

Jane Anderson, ConstructionLCA Ltd. (no signature required)



## **Product**

#### **Product description:**

This EPD documents the potential environmental impacts of 1  $\text{m}^2$  of ROCKWOOL Nivell-/Subfloorskiva stone wool insulation with a thermal resistance (R-value) equal to 1  $\text{m}^2$ K/W. The intended use of the EPD is to communicate quantified environmental impacts of construction products for application in the assessment of the environmental performance of buildings.

#### **Product specification**

The average composition used for this EPD is calculated based on average factory consumption figures for raw materials. The raw materials are mainly non-scarce stones, and resin binder.

Materials	Value	Unit
ROCKWOOL Stone Wool	>95	%
Binder	<5	%
De-duster and water repellency oil	<0,5	%

#### Technical data:

For the products covered by this EPD, the performance data are in accordance with the declaration of performance with respect to its essential characteristics according to EN 13162:2012+A1:2015, ""Thermal insulation products for buildings – Factory made mineral wool (MW) products – Specification"".

- Thermal conductivity: 0,037 W/mK, reference standards: EN 12939 and EN 12667
- Fire class: A1, reference standard: EN 13501-1:2007 + A1:2009

A full overview of the technical specifications can be found on www.rockwool.se

#### Market

This EPD is intended for the Swedish market. The EPD can be used in other specific Nordics markets by adjusting the A4 module to reflect correct transportation distance.

#### Reference service life, product

ROCKWOOL® stone wool thermal insulation products are extremely durable and provide effective performance for the lifetime of a building or host structure, with no need to be replaced. The thermal, fire-resistance, and acoustic performance of ROCKWOOL® stone wool products, when correctly installed, remains the same during 60 years reference service life or as long as the insulation is part of the building.

#### Reference service life, building or construction works

In this EPD, the reference service life of a building is set to 60 years.

## LCA: Calculation rules

#### Declared unit:

1 m2 ROCKWOOL® Nivell-/Subfloorskiva for the Swedish market (R=1)

#### **Cut-off criteria:**

All major raw materials and all the essential energy are included. All hazardous materials and substances are considered in the inventory. Data sets within the system boundary are complete and fulfil criteria for the exclusion of inputs and output criteria. All data, materials and energy consumptions, have been specified according to the production data and have been considered within the inventory analysis.

#### Allocation:

The allocation is made in accordance with the provisions of EN 15804+A2. Production activities, electricity and energy consumption and waste generation are allocated equally among all products from the production site through mass allocation.

## Data quality:

All data represents the applicable geography, time and technology for the specific and generic data, generally assessed as good and very good. Primary data are collected from the specific production sites, in the reference year 2021 and represent stabilized production. Generic data is from GaBi database (version 2021) with GaBi Software version 10.0.1.92.

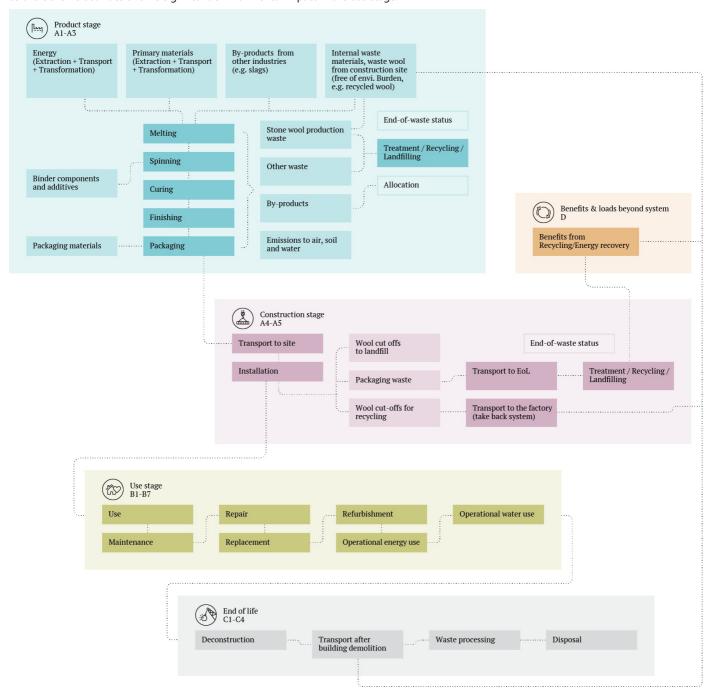


## System boundaries (X=included, MND=module not declared, MNR=module not relevant)

		Product	stage		ruction ion stage				Use st	age				End of lif	e stage		Beyond the system boundaries
	Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De- construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery- Recycling- potential
j	A1	A2	A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	C3	C4	D
	Χ	Χ	X	X	Χ	MND	MND	MND	MND	MND	MND	MND	X	X	Χ	X	X

## System boundary:

The LCA is performed as a 'cradle-to-grave' study, addressing all life cycle stages identified in the EN 15804+A2. All major raw materials, energy, electricity use and waste are included for all life cycle modules, see flowchart below. Use stage B1-7 modules are considered but are not relevant, as there are no activities and no significant environmental impact in the use stage.





## LCA: Scenarios and additional technical information

The following information describe the scenarios in the different modules of the EPD.

The EPD is based on LCA inventory data from the producing factories. The reference flow is a weighted average based on the distribution of production capacity

Transport from production place to assembly/user (A4)

The A4 distance is calculated as weighted average distance for the Swedish market

#### Assembly (A5)

In A5 the default installation is assumed to be manual, therefore no energy consumption or ancillary equipment is needed. The product waste from installation is assumed to be 2% and according to the modularity principle of EN 15804+A2 its impacts are fully allocated to A5, following same EoL scenario as in C. The A5 module includes also the corresponding end-of-life considerations for packaging (10 % landfill). The credits from heat and electricity recovery from incineration or material recycling from module A5 (90% recycling and energy recovery) are attributed to module D

Use stage (B1, B2, B3, B4, B5, B6, B7)

There are no consumables and no maintenance (B2), repair (B3), replacements (B4) or refurbishments (B5) required during the use of ROCKWOOL® thermal insulation products in standard conditions. They do not use energy (B6) or water (B7) during their operational life. No LCA: Scenarios and additional technical information EPD for the best environmental decision 8 significant emissions to the indoor environment occur in module (B1). Therefore, modules B1-B7 are not relevant for this EPD and will not be displayed in the tables below.

Benefits and loads beyond the system boundaries (D)

Benefits in module D are created from packaging materials treatment after installation and recycling potential of stone wool in the end of life. Quantities of packaging materials include both recycled materials and materials sent for energy recovery. Recycling potential of net stone wool material is considered here.

Transport from production place to user (A4)	Capacity utilisation (incl. return) %	Distance (km)	Fuel/Energy Consumption	Unit	Value (Liter/tonne)
Transport from Moss: Truck, Euro 6, 27t payload (kgkm)	30,0 %	336	0,019	l/tkm	6,38
Transport from Trondheim: Truck, Euro 6, 27t payload (kgkm)	30,0 %	64	0,019	l/tkm	1,22
Transport from production place to user (A4)	Unit	Value			
Transport, Truck, Euro 6	km	400			
Assembly (A5)	Unit	Value			
Auxiliary	kg	0,00			
Cardboard and paper packaging	kg	0,00			
Electricity consumption	kWh	0,00			
Material loss	kg	0,05			
Other energy carriers	MJ	0,00			
Plastic packaging	kg	0,04			
Water consumption	m3	0,00			
Wood packaging	kg	0,11			
Transport to waste processing (C2)	Capacity utilisation	D' (1)	Fuel/Energy Consumption	1124	Value
5 (/	(incl. return) %	Distance (km)	ruel/Ellergy Collsumption	Unit	(Liter/tonne)
Waste transport, Norway: Truck, Euro 6 (kgkm)	(incl. return) % 50,0 %	Distance (km)	0,025	l/tkm	(Liter/tonne) 3,75
	· · · · · ·				
Waste transport, Norway: Truck, Euro 6 (kgkm)	50,0 %	150			
Waste transport, Norway: Truck, Euro 6 (kgkm)  Waste processing (C3)	50,0 % Unit	150 Value			
Waste transport, Norway: Truck, Euro 6 (kgkm)  Waste processing (C3)  Collected as mixed construction waste	50,0 % <b>Unit</b> kg	150 <b>Value</b> 2,70			
Waste transport, Norway: Truck, Euro 6 (kgkm)  Waste processing (C3)  Collected as mixed construction waste Energy recovery	50,0 %  Unit  kg  kg	150 <b>Value</b> 2,70 0,00			
Waste transport, Norway: Truck, Euro 6 (kgkm)  Waste processing (C3)  Collected as mixed construction waste Energy recovery Sent for recycling	50,0 %  Unit  kg  kg  kg  kg	150 Value 2,70 0,00 0,00			
Waste transport, Norway: Truck, Euro 6 (kgkm)  Waste processing (C3)  Collected as mixed construction waste  Energy recovery  Sent for recycling  Sent for reuse	50,0 %  Unit  kg  kg  kg  kg	150 Value 2,70 0,00 0,00 0,00			
Waste transport, Norway: Truck, Euro 6 (kgkm)  Waste processing (C3)  Collected as mixed construction waste  Energy recovery  Sent for recycling  Sent for reuse  Disposal (C4)	50,0 %  Unit  kg  kg  kg  kg  Unit	150  Value 2,70 0,00 0,00 0,00 Value			
Waste transport, Norway: Truck, Euro 6 (kgkm)  Waste processing (C3)  Collected as mixed construction waste Energy recovery Sent for recycling Sent for reuse  Disposal (C4)  Hazardous waste disposed	50,0 %  Unit  kg kg kg kg  Unit	150  Value  2,70 0,00 0,00 0,00 Value 0,00			
Waste transport, Norway: Truck, Euro 6 (kgkm)  Waste processing (C3)  Collected as mixed construction waste Energy recovery Sent for recycling Sent for reuse  Disposal (C4)  Hazardous waste disposed Sent to landfill  Benefits and loads beyond the system	50,0 %  Unit  kg kg kg kg  kg kg	150  Value  2,70 0,00 0,00 0,00  Value 0,00 2,70			



## **LCA: Results**

The LCA results are presented below for the declared unit defined on page 2 of the EPD document.

Enviro	nmental impact									
	Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
	GWP-total	kg CO <sub>2</sub> -eq	9,32E-01	8,28E-02	2,23E-01	0	5,13E-03	0,00E+00	4,40E-02	-9,41E-02
	GWP-fossil	kg CO <sub>2</sub> -eq	1,03E+00	8,22E-02	5,55E-02	0	5,10E-03	0,00E+00	4,40E-02	-1,03E-01
	GWP-biogenic	kg CO <sub>2</sub> -eq	-9,72E-02	1,79E-05	1,68E-01	0	-6,41E-07	0,00E+00	-9,30E-05	9,20E-03
	GWP-luluc	kg CO <sub>2</sub> -eq	6,10E-04	6,61E-04	4,51E-05	0	4,07E-05	0,00E+00	1,29E-04	-7,63E-06
Ġ	ODP	kg CFC11 -eq	4,84E-09	0,00E+00	3,69E-10	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
CE .	AP	mol H+ -eq	9,19E-03	7,32E-05	3,43E-04	0	5,38E-06	0,00E+00	3,14E-04	-2,86E-04
-	EP-FreshWater	kg P -eq	1,33E-05	2,45E-07	6,78E-07	0	1,51E-08	0,00E+00	7,39E-08	-2,77E-08
	EP-Marine	kg N -eq	1,14E-03	2,15E-05	5,66E-05	0	1,77E-06	0,00E+00	8, 14E-05	-5,31E-05
	EP-Terrestial	mol N -eq	2,87E-02	2,62E-04	1,17E-03	0	2,11E-05	0,00E+00	8,94E-04	-5,80E-04
	POCP	kg NMVOC -eq	2,69E-03	6,23E-05	1,29E-04	0	4,71E-06	0,00E+00	2,47E-04	-1,75E-04
	ADP-minerals&metals <sup>1</sup>	kg Sb -eq	3,51E-07	1,45E-09	1,29E-08	0	4,89E-10	0,00E+00	4,16E-09	-8,97E-09
	ADP-fossil <sup>1</sup>	MJ	1,33E+01	1,10E+00	6,33E-01	0	6,81E-02	0,00E+00	5,85E-01	-2,67E+00
<u>%</u>	WDP <sup>1</sup>	m <sup>3</sup>	2,30E-01	7,18E-04	2,63E-02	0	4,47E-05	0,00E+00	4,71E-03	-3,99E-02

GWP total = Global Warming Potential total; GWP fossil = Global Warming Potential fossil fuels; GWP biogenic = Global Warming Potential biogenic; GWP luluc = Global W Potential land use change; ODP = Ozone Depletion; AP = Acidification; EP freshwater = Eutrophication aquatic freshwater; EP marine = Eutrophication aquatic marine; EP terrestrial = Eutrophication terrestrial; POCP = Photochemical ozone formation; ADPE = Abiotic Depletion Potential minerals and metals; ADPF = Abiotic Depletion Potential fossil fuels; WDP = Water depletion potential

Reading example: 9.0 E-03 = 9.0\*10-3 = 0.009

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

## Remarks to environmental impacts

The main GWP contribution from the product life cycle is linked to the Product stage (A1-A3). This is primarily related to the materials delivered to the factory gate and consumption of energy.

The CO2 absorbed by the wood in the wooden pallets is represented by a negative GWPbiogenic.

The GWP-Biogenic, e.g. the carbon stored in the wooden pallets, is released during the construction stage phase (A5) where the wood is presumed incinerated with energy recovery.

The benefits from energy recovery (a negative GWP) from incineration of packaging materials (wood pallets and plastic foils) is allocated to Benefits & Loads beyond system (D).

Impacts linked to end of life stages (C1-C4) are primarily linked to transportation of stone wool to recycling or to landfill.

Melting virgin materials or re-melting returned ROCKWOOL stone wool are both similarly energy intensive processes. Increasing the recycling rate for return wool, will therefore not lead to great variations in the overall GWP profile. However, increased recycling will be linked directly to reduction of waste sent to landfill.



Addition	dditional environmental impact indicators									
In	dicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
	PM	Disease incidence	8,18E-08	6,33E-10	3,06E-09	0	3,00E-12	0,00E+00	3,90E-09	-3,71E-09
	IRP <sup>2</sup>	kgBq U235 -eq	1,76E-02	1,91E-04	3,40E-03	0	1,19E-05	0,00E+00	6,43E-04	-4,53E-04
<b>2</b>	ETP-fw <sup>1</sup>	CTUe	4,09E+00	7,92E-01	2,47E-01	0	4,92E-02	0,00E+00	3,32E-01	-2,98E-02
42.	HTP-c <sup>1</sup>	CTUh	1,60E-09	2,00E-12	5,00E-11	0	0,00E+00	0,00E+00	5,00E-11	-1,00E-11
48	HTP-nc <sup>1</sup>	CTUh	6,67E-09	6,57E-10	6,39E-10	0	5,00E-12	0,00E+00	5,41E-09	-3,19E-10
	SQP <sup>1</sup>	dimensionless	1,99E+01	3,78E-01	7,09E-01	0	2,34E-02	0,00E+00	1,18E-01	-1,64E+00

PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Potential Soil Quality Index (dimensionless)

Reading example: 9.0 E-03 = 9.0\*10-3 = 0.009

- 1. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.
- 2. 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.



Resource use										
	ndicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
	PERE	MJ	9,19E+00	6,14E-02	3,76E-01	0	3,82E-03	0,00E+00	7,86E-02	-3,74E-01
	PERM	MJ	1,09E-01	0,00E+00	-5,87E-03	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
្ស	PERT	МЈ	9,30E+00	6,14E-02	3,70E-01	0	3,82E-03	0,00E+00	7,86E-02	-3,74E-01
	PENRE	МЈ	1,25E+01	1,10E+00	6,49E-01	0	6,83E-02	0,00E+00	5,85E-01	-2,67E+00
el.	PENRM	МЈ	8,71E-01	0,00E+00	-4,71E-02	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
I	PENRT	МЈ	1,33E+01	1,10E+00	6,02E-01	0	6,83E-02	0,00E+00	5,85E-01	-2,67E+00
	SM	kg	0,00E+00	0,00E+00	0,00E+00	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
2	RSF	МЈ	0,00E+00	0,00E+00	0,00E+00	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
	NRSF	МЈ	0,00E+00	0,00E+00	0,00E+00	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
<b>%</b>	FW	$m^3$	5,88E-03	7,02E-05	6,53E-04	0	4,36E-06	0,00E+00	1,44E-04	-1,28E-03

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; SM = Use of secondary materials; RSF = Use of renewable secondary fuels; RSF = Use of non renewable secondary fuels; FW = Use of net fresh water

Reading example: 9.0 E-03 = 9.0\*10-3 = 0.009



End of life - Wa	ste									
In	dicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
A	HWD	kg	3,36E-07	0,00E+00	1,22E-08	0	0,00E+00	0,00E+00	6,20E-11	-2,22E-10
Ū	NHWD	kg	1,56E-01	1,63E-04	7,27E-02	0	1,01E-05	0,00E+00	2,91E+00	-2,76E-04
8	RWD	kg	1,16E-04	1,33E-06	2,26E-05	0	8,28E-08	0,00E+00	6,11E-06	-3,47E-06

HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed

Reading example: 9,0 E-03 = 9,0\*10-3 = 0,009

End of life - Outpu	ind of life - Output flow									
Indicat	tor	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
<b>@</b> D	CRU	kg	0,00E+00	0,00E+00	0,00E+00	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
\$>	MFR	kg	0,00E+00	0,00E+00	1,23E-01	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
DF	MER	kg	0,00E+00	0,00E+00	7,26E-03	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
50	EEE	MJ	0,00E+00	0,00E+00	1,90E-01	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
D.B.	EET	MJ	0,00E+00	0,00E+00	5,65E-01	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00

CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported energy Thermal Reading example: 9.0 E-03 = 9.0\*10-3 = 0.009

Biogenic Carbon Content							
Indicator	Unit	At the factory gate					
Biogenic carbon content in product	kg C	0,00E+00					
Biogenic carbon content in accompanying packaging	kg C	2,66E-02					
Biogenic carbon content in accompanying packaging	kg C	2,66E-02					

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO2.



## **Additional Norwegian requirements**

## Greenhouse gas emissions from the use of electricity in the manufacturing phase

National production mix from import, low voltage (production of transmission lines, in addition to direct emissions and losses in grid) of applied electricity for the manufacturing process (A3).

Electricity mix	Data source	Amount	Unit
Electricity, Hydropower, Norway (kWh)	GaBi (version 2021)	14,00	g CO2-eq/kWh

## **Dangerous substances**

The product contains no substances given by the REACH Candidate list or the Norwegian priority list.

#### **Indoor environment**

There are no legal requirements for indoor emissions of stone wool thermal insulation products.

## **Additional Environmental Information**

Environmental impa	nvironmental impact indicators EN 15804+A1 and NPCR Part A v2.0								
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP	kg CO <sub>2</sub> -eq	0,00E+00	0,00E+00	0,00E+00	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
ODP	kg CFC11 -eq	0,00E+00	0,00E+00	0,00E+00	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
POCP	kg C <sub>2</sub> H <sub>4</sub> -eq	0,00E+00	0,00E+00	0,00E+00	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
AP	kg SO <sub>2</sub> -eq	0,00E+00	0,00E+00	0,00E+00	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EP	kg PO <sub>4</sub> ³eq	1,79E-03	3,38E-03	5,71E-05	0	1,55E-04	0,00E+00	2,65E-05	-1,83E-05
ADPM	kg Sb -eq	0,00E+00	0,00E+00	0,00E+00	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
ADPE	MJ	0,00E+00	0,00E+00	0,00E+00	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
GWPIOBC	kg CO <sub>2</sub> -eq	1,84E+00	1,05E-01	5,55E-02	0	4,46E-02	0,00E+00	4,09E-02	-1,03E-01

GWP = Global warming potential; ODP = Depletion potential of the stratospheric ozone layer; POCP = Formation potential of tropospheric photochemical oxidants; AP = Acidification potential of land and water; EP = Eutrophication potential; ADPM = Abiotic depletion potential for non fossil resources; ADPE = Abiotic depletion potential for fossil resources; GWP-IOBC/GHG = Global warming potential calculated according to the principle of instantanious oxidation (except emissions and uptake of biogenic carbon)



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	Program operator and publisher	Phone: +47 23 08 80 00
	The Norwegian EPD Foundation	e-mail: post@epd-norge.no
	Post Box 5250 Majorstuen, 0303 Oslo, Norway	web: www.epd-norge.no
	Owner of the declaration:	Phone: +45 4656 1616
ROCKWOOL	ROCKWOOL Nordics	e-mail: info@rockwool.com
	Hovedgaden 501, DK-2640 Hedehusene	web: www.rockwool.dk
	Author of the Life Cycle Assessment	Phone: +47 916 50 916
(LCA)	LCA.no AS	e-mail: post@lca.no
.no	Dokka 6B, 1671	web: www.lca.no
	Developer of EPD generator	Phone: +47 916 50 916
(LCA)	LCA.no AS	e-mail: post@lca.no
.no	Dokka 6B,1671 Kråkerøy	web: www.lca.no
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