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Environmental product declaration

in accordance with ISO 14025 and EN 15804+A2

Isola Takshingel Skrå

EPD-Global

Owner of the declaration:
Isola AS

Produkt:
Isola Takshingel Skrå

Declared unit:
1 m²

This declaration is based on Product Category Rules:
EN 15804:2012+A2:2019 serves as core PCR
NPCR 022:2022 Part B for Roof waterproofing

Program operator:
EPD-Global

Declaration number:
NEPD-7992-7655

Issue date:
08.11.2024

Latest revision
v2.0 Date: 05.06.2026

Valid to:
08.11.2029

EPD software:
LCAno EPD generator ID: 1620088

General information

Product:

Isola Takshingel Skrå

Owner of the declaration:

Isola AS
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Program operator:

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Manufacturer:

Isola AS

Declaration number:

NEPD-7992-7655

Place of production:

Isola AS
Prestemoen 9
3946 Porsgrunn, Norway

This declaration is based on Product Category Rules:

EN 15804:2012+A2:2019 serves as core PCR
NPCR 022:2022 Part B for Roof waterproofing

Management system:

ISO 9001 Certificate No: QSC-6011, ISO 14001:2015

Statement of liability:

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

Organisation no:

928 764 745

Declared unit:

1 m² Isola Takshingel Skrå

Issue date:

08.11.2024

Declared unit (cradle to gate) with option:

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

Valid to:

08.11.2029

Year of study:

2025

Functional unit:

1m² roof covered with Isola Takshingel

Comparability:

EPDs of construction products may not be comparable if they do not comply with EN 15804 and are not viewed in a building context.

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. Verification of each EPD is made according to EPD-Global's guidelines for verification and approval requiring that tools are i) integrated into the company's environmental management system, ii) the procedures for use of the EPD tool are approved by EPD-Global, and iii) the process is reviewed annually by an independent third party verifier. See Appendix G of EPD-Global's General Programme Instructions for further information on EPD tools

Development and verification of EPD:

The declaration is created using EPD generator v2025.09, developed by LCA.no. The EPD tool is integrated in the company's management system, and has been approved by EPD-Global. NEPDT19

Developer of EPD: Raquel Flavio

Reviewer of company-specific input data and EPD: Alexandra Maria Widestam

Verification of EPD tool:

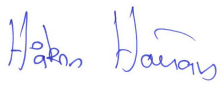
Independent third party verification of the EPD tool, background data and test-EPD in accordance with EPD-Global's procedures and guidelines for verification and approval of EPD tools.

Third party verifier:

Elisabet Amat, GREENIZE projects

(no signature required)

Approved:



Håkon Hauan, CEO EPD-Global

Product:

Product description:

This is a product specific EPD for Isola Takshingel Skrå. Isola Takshingel is an asphalt roofing coating made with a fibreglass core saturated with polymer-modified bitumen and can be used both on new-bulit buildings and for rehabilitation

Product specification

An advanced adhesive system in the granulated surface means that adhesion is immediate. The upper part of the back is coated with plastic foil that provides an antifriction layer and prevents adhesion in the package and to the roof deck. Isola Takshingel is ideal for use on cold and ventilated roof constructions.

Materials	kg	%
Additives	0.019	0.2162
Bitumen	2.57	29.22
Chemical	0.028	0.3186
Polyester film	0.022	0.2503
Polypropylene (PP)	0.316	3.60
Raw materials, Mineral	5.60	63.72
Reinforcement	0.235	2.67
Total	8.79	100.00

Packaging	kg	%
Packaging - Plastic	0.0267	16.31
Packaging - Wood	0.137	83.69
Total incl. packaging	8.95	100.00

Technical data:

Thickness: 3mm
Dimensional variation: ± 3 mm
External fire performance according to EN 13501-5: Broof (t1), Broof (t2), Broof (t3)

Market:

EU

Reference service life, product

> 30 years

Reference service life, building

50 years

LCA: Calculation rules

Declared unit:

1 m² Isola Takshingel Skrå

Cut-off criteria:

All major raw materials and all the essential energy are included. The production processes for raw materials and energy flows with very small amounts (less than 1%) may not be included. These cut-off criteria do not apply for hazardous materials and substances.

Allocation:

The allocation is made in accordance with the provisions of EN 15804. Incoming energy and water and waste production in-house is allocated equally among all products through mass allocation. Effects of primary production of recycled materials is allocated to the main product in which the material was used. The recycling process and transportation of the material is allocated to this analysis.

Data quality:

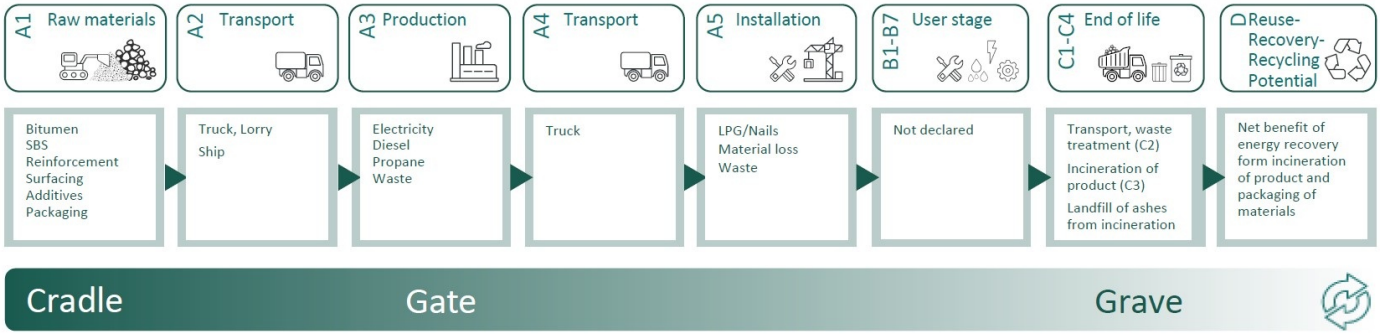
Specific data for the product composition are provided by the manufacturer. The data represent the production of the declared product and were collected for EPD development in the year of study. Background data is based on EPDs according to EN 15804 and different LCA databases. The data quality of the raw materials in A1 is presented in the table below.

Materials	Source	Data quality	Year
Additives	ecoinvent 3.10.1	Database	2023
Bitumen	Eurobitume (2025)	Life Cycle Inventory	2025
Chemical	LCA.no	Database	2024
Packaging - Plastic	ecoinvent 3.10.1	Database	2023
Packaging - Wood	ecoinvent 3.10.1	Database	2023
Polyester film	Modified ecoinvent 3.10.1	Database	2023
Polypropylene (PP)	Modified ecoinvent 3.10.1	Database	2023
Raw materials, Mineral	ecoinvent 3.10.1	Database	2023
Raw materials, Mineral	LCA.no	Database	2024
Reinforcement	ecoinvent 3.10.1	Database	2023

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

Product stage			Construction installation stage		Use stage							End of life 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
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X

System boundary:



Additional technical information:

LCA: Scenarios and additional technical information

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

The product is produced in A3 and installed manually with neglectable energy use in A5, assuming a 5% material loss. The packaging waste is treated appropriately. Module C1 is included but assumed to be zero, since the product contributes minimally to the total environmental load of a building demolition. The product is assumed to be incinerated with energy recovery in C3. The benefit of substituting energy (heat and electricity) is included in module D.

Transport from production place to user (A4)	Capacity utilisation (incl. return) %	Distance (km)	Fuel/Energy Consumption	Unit	Value (Liter/tonne)
Truck, EURO 6 (kgkm)	36.7 %	4239.00	0.043	l/tkm	182.28

Assembly (A5)	Unit	Value			
Material loss (kg)	Units	0.05			
Waste, plastic, mixture, to average treatment (kg)	kg	0.0267			
Waste treatment, packaging, pallet, EUR wooden pallet, single use (kg)	kg	0.137			

Transport to waste processing (C2)	Capacity utilisation (incl. return) %	Distance (km)	Fuel/Energy Consumption	Unit	Value (Liter/tonne)
Truck, EURO 6 (kgkm)	36.7 %	85.00	0.043	l/tkm	3.66

Waste processing (C3)	Unit	Value			
Waste treatment per kg Bitumen sheet, incineration with fly ash extraction (kg)	kg	8.79			
Waste treatment per kg Polypropylene, PP, incineration with fly ash extraction - C3 (kg)	kg	0.158			
Waste treatment per kg Rubber, municipal incineration with fly ash extraction (kg)	kg	0.0095			
Waste treatment per kg Polyethylene terephthalate, PET, incineration with fly ash extraction - C3 (kg)	kg	0.011			

Disposal (C4)	Unit	Value			
Landfilling of ashes from incineration of Polypropylene, PP, process per kg ashes and residues - C4 (kg)	kg	0.1627			
Landfilling of ashes from incineration of Rubber, process per kg ashes and residues - C4 (kg)	kg	0.009997			
Landfilling of ashes from incineration of Polyethylene terephthalate, PET, process per kg ashes and residues - C4 (kg)	kg	0.01124			
Landfilling of ashes from incineration of bitumen sheet, process per kg ashes and residues (kg)	kg	3.25			

Benefits and loads beyond the system boundaries (D)	Unit	Value			
Substitution of electricity, in Norway (MJ)	MJ	12.84			
Substitution of thermal energy, district heating, in Norway (MJ)	MJ	193.90			
Substitution of electricity, in Norway (MJ)	MJ	0.000005174			

LCA: Results

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

Environmental impact										
	Indicator	**Unit**	A1-A3	A4	A5	C1	C2	C3	C4	D
	GWP-total	kg CO_2 -eq	4.17E+00	4.09E-01	1.49E+00	0	1.07E-01	2.12E+01	8.30E-02	-1.17E+00
	GWP-fossil	kg CO_2 -eq	4.38E+00	4.09E-01	1.29E+00	0	1.06E-01	2.12E+01	8.29E-02	-1.13E+00
	GWP-biogenic	kg CO_2 -eq	-2.08E-01	1.69E-04	1.97E-01	0	4.41E-05	4.28E-04	4.97E-05	-1.95E-03
	GWP-luluc	kg CO_2 -eq	2.88E-03	1.45E-04	-1.77E-03	0	3.79E-05	1.74E-04	1.66E-05	-3.88E-02
	ODP	kg CFC11 -eq	5.75E-07	9.26E-08	-4.09E-03	0	2.41E-08	9.26E-09	1.41E-08	-8.19E-02
	AP	mol H+ -eq	1.73E-02	1.17E-03	8.47E-04	0	3.06E-04	6.81E-03	3.84E-04	-9.79E-03
	EP-FreshWater	kg P -eq	5.25E-04	3.27E-06	2.21E-05	0	8.51E-07	9.14E-05	1.03E-06	-1.84E-04
	EP-Marine	kg N -eq	3.93E-03	2.32E-04	1.90E-04	0	6.06E-05	2.03E-03	1.28E-04	-3.06E-03
	EP-Terrestial	mol N -eq	4.12E-02	2.60E-03	1.75E-03	0	6.77E-04	1.85E-02	1.43E-03	-3.30E-02
	POCP	kg NMVOC -eq	1.78E-02	9.96E-04	8.11E-04	0	2.59E-04	4.93E-03	4.05E-04	-9.16E-03
	ADP-minerals&metals[1]	kg Sb-eq	1.05E-04	1.13E-05	5.27E-06	0	2.94E-06	3.01E-06	7.68E-07	-1.85E-05
	ADP-fossil[1]	MJ	1.81E+02	6.18E+00	8.93E+00	0	1.61E+00	3.95E+00	1.11E+00	-1.60E+01
	WDP[1]	m^3	1.24E+01	5.98E+00	1.18E+00	0	1.56E+00	6.42E-01	6.54E+00	-4.88E+00

GWP-total = Global Warming Potential total; 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

"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 LCA results in the EPD are calculated using a specific methodological approach for accounting energy resources, see the additional requirements section for more information. In this EPD the following approach was used: Location-based approach.

Additional environmental impact indicators

Indicator		Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
	PM	Disease incidence	2.12E-07	2.50E-08	-1.31E-08	0	6.52E-09	4.17E-08	5.85E-09	-5.63E-07
	IRP[2]	kgBq U235 -eq	2.58E-01	2.70E-02	1.06E-02	0	7.04E-03	2.51E-02	4.85E-03	-1.14E-01
	ETP-fw[1]	CTUe	9.24E+01	4.58E+00	1.07E+00	0	1.19E+00	3.32E+00	1.30E+00	-8.40E+01
	HTP-c[1]	CTUh	2.48E-09	0.00E+00	9.70E-11	0	0.00E+00	8.24E-10	5.80E-11	-1.56E-09
	HTP-nc[1]	CTUh	9.65E-08	5.01E-09	1.74E-09	0	1.30E-09	1.19E-08	2.09E-09	-8.90E-08
	SQP[1]	dimensionless	4.03E+01	4.32E+00	-2.82E+00	0	1.13E+00	2.04E+00	2.72E+00	-1.07E+02

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 = Soil Quality (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										
Indicator		Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
	PERE	MJ	6.32E+00	8.85E-02	-4.62E+00	0	2.30E-02	3.07E-01	4.12E-02	-9.92E+01
	PERM	MJ	2.06E+00	0.00E+00	-1.80E+00	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	PERT	MJ	8.38E+00	8.85E-02	-6.42E+00	0	2.30E-02	3.07E-01	4.12E-02	-9.92E+01
	PENRE	MJ	6.21E+01	6.18E+00	3.01E+00	0	1.61E+00	3.95E+00	1.11E+00	-1.60E+01
	PENRM	MJ	1.18E+02	0.00E+00	3.87E+00	0	0.00E+00	-1.14E+01	0.00E+00	0.00E+00
	PENRT	MJ	1.80E+02	6.18E+00	6.88E+00	0	1.61E+00	-7.43E+00	1.11E+00	-1.60E+01
	SM	kg	5.33E-01	0.00E+00	2.67E-02	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	RSF	MJ	8.86E-02	3.16E-03	4.42E-03	0	8.25E-04	4.33E-05	1.04E-03	-5.74E-03
	NRSF	MJ	2.09E-02	1.13E-02	-2.88E-01	0	2.95E-03	0.00E+00	5.31E-02	-5.86E+00
	FW	m^3	4.25E-02	6.61E-04	-2.84E-03	0	1.72E-04	1.09E-02	1.01E-03	-1.13E-01

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 materials; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water

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

End of life - Waste

Indicator		Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
	HWD	kg	1.18E-01	3.19E-04	1.69E-01	0	8.30E-05	0.00E+00	3.27E+00	-1.08E-02
	NHWD	kg	1.10E+01	3.01E-01	1.18E+00	0	7.83E-02	8.97E+00	4.91E-01	-7.49E-01
	RWD	kg	2.44E-04	4.21E-05	1.11E-05	0	1.10E-05	0.00E+00	6.79E-06	-8.10E-05

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 - Output flow

Indicator		Unit	A1-A3	A4	A5	C1	C2	C3	C4	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	7.53E-02	0.00E+00	1.21E-02	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	MER	kg	7.84E-09	0.00E+00	1.44E-01	0	0.00E+00	1.58E-01	0.00E+00	0.00E+00
	EEE	MJ	7.61E-05	0.00E+00	9.49E-02	0	0.00E+00	7.80E-03	0.00E+00	0.00E+00
	EET	MJ	1.91E-04	0.00E+00	1.43E+00	0	0.00E+00	3.82E-03	0.00E+00	0.00E+00

CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported energy electrical; 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	6.40E-02

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

Additional requirements

Transparent reporting of energy

The EPD presents environmental impact categories in the main results tables using a specific methodological approach for accounting energy resources. To ensure transparency and support informed interpretation, the table below explains the implications of the chosen methodology. It illustrates the GWP-total for energy resources used in the manufacturing stage, comparing the location-based and market-based approaches. In this EPD the following approach was used in main result tables: Location-based approach.

Electricity mix	Source	Amount	Unit	GWPtotal [kg CO2/Unit]	SUM [kg CO2]
Location-based approach.					
Electricity, Norway, low voltage	ecoinvent 3.10.1	3.97E-01	kWh	2.46E-02	9.76E-03
Market-based approach.					
Electricity, Norway, low voltage, residual mix	ecoinvent 3.10.1	3.97E-01	kWh	6.23E-01	2.47E-01

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

Dangerous substances

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

Indoor environment

Produktet ikke har påvirkning på inneklima.

Additional Environmental Information

Additional environmental impact indicators required in NPCR Part A for construction products									
Indicator	**Unit**	A1-A3	A4	A5	C1	C2	C3	C4	D
GWPIOBC	kg CO_2 -eq	4.37E+00	4.09E-01	1.29E+00	0	1.07E-01	2.12E+01	8.33E-02	-1.15E+00

GWP-IOBC: Global warming potential calculated according to the principle of instantaneous oxidation. In order to increase the transparency of biogenic carbon contribution to climate impact, the indicator GWP-IOBC is required as it declares climate impacts calculated according to the principle of instantaneous oxidation. GWP-IOBC is also referred to as GWP-GHG in context to Swedish public procurement legislation.

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