




ENVIRONMENTAL PRODUCT DECLARATION

Termex ASK 20 asphalt fiber



Program operator, publisher:	
Owner of the declaration:	Termex-Eriste Oy
Name of the product:	Termex ASK 20 asphalt fiber
Declaration number:	RTS_148_21
Registration number:	
ECO Platform reference number:	
Issue date:	
Valid to:	
Scope of the declaration	This environmental product declaration covers the environmental impacts of Termex ASK 20 asphalt fiber . The declaration has been prepared in accordance with EN 15804:2019 and ISO 14025 standards and the additional requirements stated in the RTS PCR (English version, 26.8.2020). This declaration covers the life cycle stages from cradle to gate, end of life stage and benefits and loads beyond the system boundary.
	 Jessica Karhu RTS EPD Committee secretary  Laura Apilo Managing Director

1. GENERAL INFORMATION, THE SCOPE AND VERIFICATION OF THE DECLARATION

Owner of the declaration, manufacturer

Termex-Eriste Oy
Ilolantie 14, 43100 SAARIJÄRVI
Termex@termex.fi

Product name and number

Termex ASK 20 asphalt fiber
GTIN 06429830086024

Place of production

Produced in Saarijärvi, Finland

Additional information

Additional Information from pasi.typpo@termex.fi

Product Category Rules and the scope of the declaration

The declaration has been prepared in accordance with EN 15804:2019 and ISO 14025 standards and the additional requirements stated in the RTS PCR (English version, 26.8.2020)

Author of the life-cycle assessment and declaration

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Verification

The declaration has been prepared in accordance with EN 15804:2019 and ISO 14025 standards and the additional requirements stated in the RTS PCR (English version, 26.8.2020).

The declaration was verified according to abovementioned standards and PCR rules by:

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Third party verification on 14.5.2021.
Verification is valid 14.5.2021-14.5.2026.

Declaration issue date and validity

Declaration issue date 2.9.2021. The declaration is valid 5 years, 2.9.2026.

2. PRODUCT INFORMATION

Product description

The declaration is made for Termex ASK 20 asphalt fiber, which is blended with asphalt to create a more durable and long lasting road surface. Asphalt fiber is manufactured in Saarijärvi, Finland. Asphalt fiber is produced by milling wastepaper.

Key information of environmental information reported per kilogram

Indicators	Unit	A1	A2	A3	A1-A3	A4	C1-C4	D
Climate change - total	kg CO ₂ eq.	-1.48E+00	9.48E-03	4.21E-03	-1.46E+00	9.27E-03	0.00E+00	0.00E+00
Abiotic depletion, minerals & metals	kg Sb eq.	1.08E-08	0.00E+00	1.24E-08	2.32E-08	0.00E+00	0.00E+00	0.00E+00
Abiotic depletion of fossil resources	MJ, net calorific value	6.31E-01	0.00E+00	3.10E-02	6.62E-01	0.00E+00	0.00E+00	0.00E+00
Water use	m ³ world eq. Deprived	2.01E-04	0.00E+00	6.38E-05	2.65E-04	0.00E+00	0.00E+00	0.00E+00
Biogenic carbon content in product	kg C/kg	0.00E+00	0.00E+00	1.50E+00	1.50E+00	0.00E+00	0.00E+00	0.00E+00
Use of secondary material	kg/kg	1.00E+00	0.00E+00	0.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00

Technical information

Density (25 °C) /PANK 3105	35 kg/m ³
Moisture content, weight% /PANK 3103	4,3%
Heat resistance, weight% /PANK 3104	4,3%
Uniformity /PANK 3107	2,5%
Fiber content /PANK 3106	50% value/0,2mm, 80% value/0,8mm
Specific area /PANK 2401	2,9 m ² /g
Assessment document	Asfalttinormit 2017

Product raw materials

Material	Amount %	Usability			Origin of the material	Raw material type
		Renewable	Non-renewable	Recycled		
Wastepaper	100%			x	Finland	Bio-based

Substances under European Chemicals Agency’s REACH, SVHC restrictions

None

3. SCOPE OF LIFE CYCLE ASSESSMENT

This EPD covers cradle to gate with modules A4, C1-C4 and module D, as shown in the Figure 1.

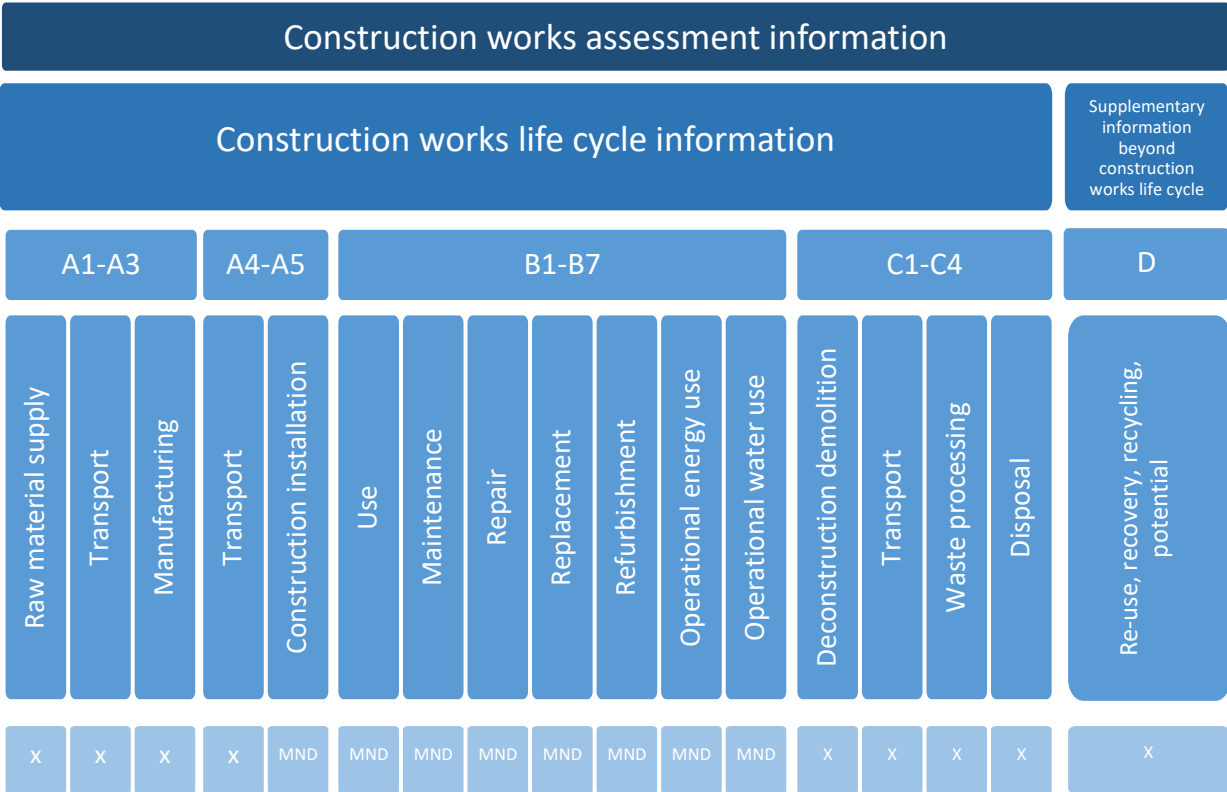


Figure 1. Modules in life cycle assessment of construction works. Modules included on this EPD are marked with x and MND = Module not included.

Declared unit

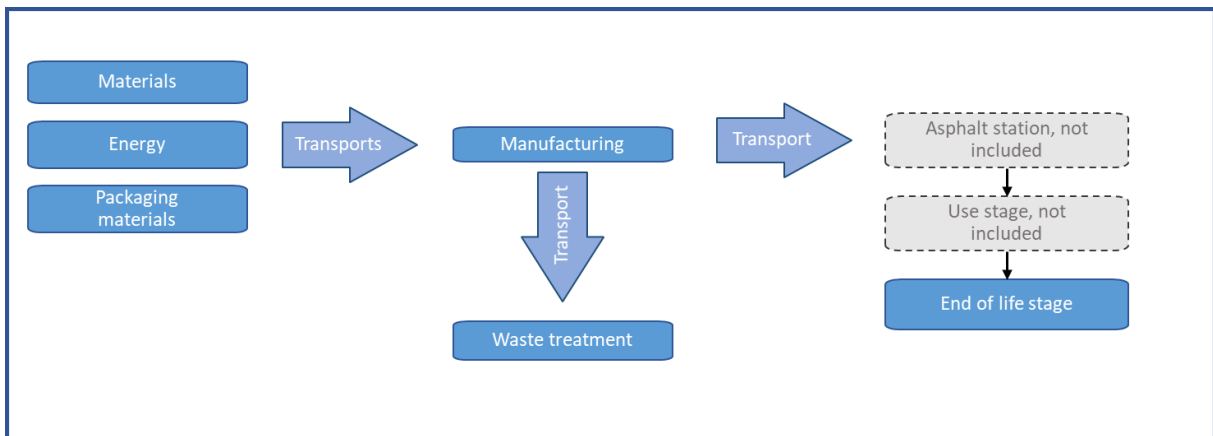
Indicators are reported per 1kg asphalt fiber insulation.

Cut-off criteria

Data for A1-A4 have been collected from the producer. Modules A1 to A3 include all the raw materials used, energy production (electricity, heat and fuels), including primary production and processing of raw materials and fuels, transport and final disposal or processing of the wastes. The main component is recycled paper, which is considered waste and doesn't carry the loads of paper production.

Modules C and D are based on the assumption that the asphalt fibers are mixed with asphalt and the life cycle stages after mixing cannot be separated after that for only asphalt fiber. Hence the loads and benefits of demolition and recycling of asphalt are part of the asphalt lifecycle and the modules C1-C4 and D are zero for the part of asphalt fiber.

The production of production equipment and means of transport, as well as the machinery, equipment and premises (production goods) needed for production and in production are excluded from the scope of the assessment, as are the commuting of workers.



Allocation

In the factory in Saarijärvi, also insulation fiber is produced and some allocations were needed. Allocation of energy for the insulation material and asphalt fiber production was made according to estimation by the producer. The waste treatment was allocated based on the production amounts (weight) of asphalt fiber and insulation fiber.

4. SCOPE OF THE LIFE-CYCLE ASSESSMENT

Core environmental impacts

Indicators	Unit	A1	A2	A3	A1-A3	A4	C1-C4	D
Climate change - total	kg CO ₂ eq.	-1.48E+00	9.48E-03	4.21E-03	-1.46E+00	9.27E-03	0.00E+00	0.00E+00
Climate change - fossil	kg CO ₂ eq.	1.54E-02	8.49E-02	3.78E-03	3.51E-02	8.21E-03	0.00E+00	0.00E+00
Climate change - biogenic	kg CO ₂ eq.	-1.50E+00	9.92E-04	4.33E-04	-1.50E+00	1.06E-03	0.00E+00	0.00E+00
Climate change - LULUC	kg CO ₂ eq.	8.02E-06	0.00E+00	1.30E-06	9.32E-06	0.00E+00	0.00E+00	0.00E+00
Ozone depletion	kg CFC-11 eq.	8.33E-09	0.00E+00	2.72E-10	8.60E-09	0.00E+00	0.00E+00	0.00E+00
Acidification	mol H ⁺ eq.	1.11E-04	1.31E-05	1.62E-05	1.30E-04	1.71E-06	0.00E+00	0.00E+00
Eutrophication, freshwater	kg PO ₄ eq.	5.14E-06	0.00E+00	1.20E-06	6.35E-06	0.00E+00	0.00E+00	0.00E+00
Eutrophication marine	kg N eq.	1.88E-05	6.52E-06	4.54E-06	2.50E-05	8.76E-07	0.00E+00	0.00E+00
Eutrophication, terrestrial	mol N eq.	1.82E-04	7.14E-05	5.15E-05	2.52E-04	9.59E-06	0.00E+00	0.00E+00
Photochemical ozone formation	kg NMVOC eq.	5.99E-05	1.69E-05	1.49E-05	7.92E-05	2.30E-06	0.00E+00	0.00E+00
Abiotic depletion, minerals & metals	kg Sb eq.	1.08E-08	0.00E+00	1.24E-08	2.32E-08	0.00E+00	0.00E+00	0.00E+00
Abiotic depletion of fossil resources	MJ, net calorific value	6.31E-01	0.00E+00	3.10E-02	6.62E-01	0.00E+00	0.00E+00	0.00E+00
Water use	m ³ world eq. Deprived	2.01E-04	0.00E+00	6.38E-05	2.65E-04	0.00E+00	0.00E+00	0.00E+00

5. OTHER INDICATORS

Biogenic carbon content

Biogenic carbon content	Unit	A3
Biogenic carbon content in product	kg C	0,42
Biogenic carbon content in packaging	kg	0

Wastes

Waste categories	Unit	A1-A3	A4	C1-C4	D
Hazardous waste disposed	kg	1.62E-04	0.00E+00	0.00E+00	0.00E+00
Non hazardous waste disposed	kg	7.10E-04	0.00E+00	0.00E+00	0.00E+00
Radioactive waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Other environmental indicators

Other environmental indicators	Unit	A1-A3	A4	C1-C4	D
Components for reuse	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for energy recovery	kg	6,80E-03	0.00E+00	0.00E+00	0.00E+00
Exported energy (heat)	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00

6. SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION

Energy in manufacturing phase

Parameter	Finland
Electricity data source and quality	Ecoinvent database 3.7, Electricity production, hydro, run-of-river, FI, reference year 1945-2020
GWP per 1kWh electricity	0.003844 kg CO ₂ -Eq

Additional technical information, transport to the building site, A3

Scenario information	Quantity	Data quality
Full trailer, diesel	50,4 l/100km	Lipasto/Ecoinvent
Average distance	250km	
Capacity utilization % (including empty returns)	80%	
Bulk density of transported products kg/m ³	26-60 kg/m ³	
Volume capacity utilisation factor	40%	

Additional information

Emissions to indoor air

The information is not available

Emissions to soil

The information is not available

Emissions to water

The information is not available

7. REFERENCES

EN15804:2019 Sustainability of construction works. Environmental Product Declarations. Core rules for the product category of construction products

ISO 14025:2011-10 Environmental labels and declarations. Type III environmental declarations. Principles and procedures

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Ecoinvent 3.5 database, 2018. <http://www.ecoinvent.org/>

Lipasto - a calculation system for traffic exhaust emissions and energy use in Finland. VTT Technical Research Centre of Finland Ltd. <http://lipasto.vtt.fi/en/index.htm>

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Nors, M., 2009. Painotuotteen hiilijalanjälki tapaustarkastelujen pohjalta. VTT. http://www.vkl.fi/files/776/Painotuotteen_hiilijalanjalki_VTT.pdf