



ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930



Tikkurila

Temadur 10
Temadur 20
Temadur 50
Temadur 90

Temadur SC-F 20
Temadur SC-F 35
Temadur SC-F 50
Temadur SC-F 80
Temadur SC-M 80

Temathane PC 50
Temathane PC 80
Temacoat GPL-S MIO



EPD HUB, HUB-0955

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Created with OneClick LCA



GENERAL INFORMATION

MANUFACTURER

Manufacturer	PPG Tikkurila
Address	Heidehofintie 2, 01300 Vantaa, Finland
Contact details	Sustainability.COE@ppg.com
Website	https://tikkurilagroup.com/

EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR version 1.0, 1 Feb 2022
Sector	Construction product
Category of EPD	Third party verified EPD
Scope of the EPD	Cradle to gate with options, A4-A5, and modules C1-C4, D
EPD author	Kristjan Saul
EPD verification	Independent verification of this EPD and data, according to ISO 14025: <input type="checkbox"/> Internal certification <input checked="" type="checkbox"/> External verification
EPD verifier	Magaly González Vázquez, as an authorized verifier acting for EPD Hub Limited

The manufacturer has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programs may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804 and if they are not compared in a building context.

PRODUCTS

Representative product name	Temadur 50
Other products covered by EPD	Temacoat GPL-S MIO, Temadur 10, Temadur 20, Temadur 90, Temadur SC-F 20, Temadur SC-F 35, Temadur SC-F 50, Temadur SC-F 80, Temadur SC-M 80, Temathane PC 50, Temathane PC 80
Place of production	Vantaa facility, Finland
Period for data	Calendar year 2022
Averaging in EPD	Multiple products
Variation in GWP-fossil for A1-A3	37 %

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 litre
Declared unit mass	1,356 kg
GWP-fossil, A1-A3 (kgCO ₂ e)	5,13
GWP-total, A1-A3 (kgCO ₂ e)	5,14
Secondary material, inputs (%)	3,32
Secondary material, outputs (%)	0,0
Total energy use, A1-A3 (kWh)	10,1
Total water use, A1-A3 (m ³ e)	0,0675

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Tikkurila offers a broad range of decorative paints for consumers and professionals for surface protection and decoration. The product offerings include, among others, interior paints, lacquers and effect products, exterior products for wood, mineral, and metal surfaces, as well as services related to painting. In addition, Tikkurila produces paints and coatings for the metal and wood industries.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	0%	-
Minerals	37%	EU
Fossil materials	63%	EU, Asia
Bio-based materials	0%	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	0,0201

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 litre
Mass per declared unit	1,356 kg
Functional unit	-
Reference service life	-

SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0,1 % (1000 ppm).

PRODUCT DESCRIPTIONS

Temadur 50 is a two-component durable and non-chalking semi-gloss polyurethane paint.

It can be used as a semi-gloss topcoat for epoxy and polyurethane systems exposed to weathering and/or chemical stress. It forms a durable, easy-to-clean and non-chalking topcoat with good gloss and colour retention. The paint has also been approved for use on top of intumescent coatings.

The product is recommended for painting transport and haulage equipment, storage tank exteriors, steel framework and other steel structures, machinery and equipment.

Temacoat GPL-S MIO is a two-component, polyamide cured epoxy paint pigmented with micaceous iron oxide.

It can be used as a primer or an intermediate coat in epoxy and polyurethane systems exposed to severe weathering and splashes. Due to its micaceous iron-oxide pigmentation and superior adhesion to steel surfaces, the paint forms a very strong and durable film.

The product is recommended for use on bridges, exteriors of tanks, steel frameworks, conveyors, tubular bridges and other steel structures and equipment.

Temadur 10 is a two-component matt polyurethane paint containing anti-corrosive pigments.

It can be used as a single-coat paint for steel, zinc and aluminium surfaces. The paint is also used as a primer or a matt topcoat in epoxy systems exposed to weathering and/or chemical stress.

The product is recommended for painting of haulage equipment, storage tank exteriors and other steelwork, machinery and equipment.

Temadur 20 is a two-component semi-matt polyurethane paint containing anti-corrosive pigments.

It can be used as a single-coat paint for steel, zinc and aluminium surfaces. The paint is also used as a primer or as a semi-matt topcoat in epoxy-polyurethane systems.

The product is recommended for painting transport and haulage equipment, storage tank exteriors, steel framework and other steel structures, machinery and equipment. It can also be applied on stainless steel.

Temadur 90 is a two-component high gloss polyurethane paint.

It can be used as a glossy decorative finishing coat for epoxy systems on a variety of substrates such as steel, aluminium, concrete etc. exposed to severe weathering and/or chemical stress. It forms a durable, easy-to-clean and non-chalking topcoat with outstanding gloss and colour retention.

The product is recommended for painting transport and haulage equipment, storage tank exteriors, steel framework and other steel structures, machinery and equipment. It can also be used for painting interior wooden surfaces, e.g. metallic shades kitchen doors.

Temadur SC-F 20 is a two-component fast-drying semi-matt polyurethane paint containing anti-corrosive pigments.

It has good gloss and color retention thanks to the polyurethane resin. It forms a durable, easy-to-clean, non-chalking finish. The active anti-corrosive pigments ensure corrosion resistance even in severe climatic conditions.

The product is especially recommended as a single coat finish for agricultural and earth moving machinery and other machinery and equipment.

Temadur SC-F 35 is a two-component fast-drying semi-gloss polyurethane paint containing anti-corrosive pigments.

It has good gloss and color retention thanks to the polyurethane resin. It forms a durable, easy-to-clean, non-chalking finish. The active anti-corrosive pigments ensure corrosion resistance even in severe climatic conditions.

The product is especially recommended as a single coat finish for agricultural and earth moving machinery and other machinery and equipment. It is also suitable for use as a topcoat in epoxy/polyurethane systems exposed to weathering and chemical stress, e.g. storage tank exteriors, steel framework and other steel structures.

Temadur SC-F 50 is a two-component fast-drying semi-gloss polyurethane paint containing anti-corrosive pigments.

It has good gloss and color retention thanks to the polyurethane resin. It forms a durable, easy-to-clean, non-chalking finish. The active anti-corrosive pigments ensure corrosion resistance even in severe climatic conditions.

The product is especially recommended as a single coat finish for agricultural and earth moving machinery and other machinery and equipment. It is also suitable for use as a topcoat in epoxy/polyurethane systems exposed to weathering and chemical stress, e.g. storage tank exteriors, steel framework and other steel structures.

Temadur SC-F 80 is a two-component fast-drying glossy polyurethane paint containing anti-corrosive pigments. It has good gloss and color retention thanks to the polyurethane resin. It forms a durable, easy-to-clean, non-chalking finish. The active anti-corrosive pigments ensure corrosion resistance even in severe climatic conditions. The product is especially recommended as a single coat finish for agricultural and earth moving machinery and other machinery and equipment. It is also suitable for use as a topcoat in epoxy/polyurethane systems exposed to weathering and chemical stress, e.g. storage tank exteriors, steel framework and other steel structures.

Temadur SC-M 80 is a two-component fast-drying glossy polyurethane paint containing anti-corrosive pigments. It has good gloss and color retention thanks to the polyurethane resin. It forms a durable, easy-to-clean, non-chalking finish. The active anti-corrosive pigments ensure corrosion resistance even in severe climatic conditions. The product is especially recommended as a single coat finish for agricultural and earth moving machinery and other machinery and equipment. It is also suitable for use as a topcoat in epoxy/polyurethane systems exposed to weathering and chemical stress, e.g. storage tank exteriors, steel framework and other steel structures.

Temathane PC 50 is a high-solids two-component semi-gloss polyurethane paint. It is used as a semi-gloss topcoat for epoxy systems exposed to weathering. It forms an easy-to-clean and non-chalking topcoat with good gloss and color retention, and excellent weather and abrasion resistance. The product is recommended for painting storage tank exteriors, steel buildings and other steelwork.

Temathane PC 80 is a high-solids two-component glossy polyurethane paint. It is particularly suitable for harsh environments. It forms an easy-to-clean and non-chalking topcoat with good gloss and color retention, and excellent weather and abrasion resistance. The product is recommended for painting transport and haulage equipment, storage tank exteriors, steel framework and other steel structures, machinery, and equipment.

Further information can be found at:
<https://tikkurila.com/>

PRODUCT LIFE-CYCLE

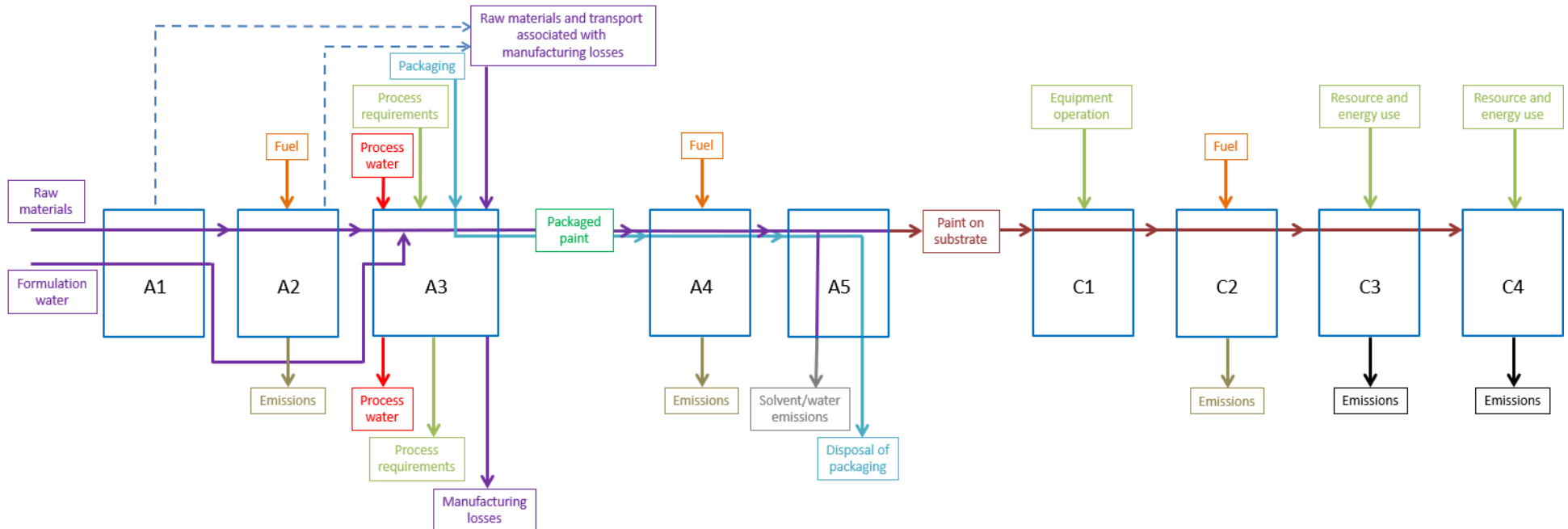
SYSTEM BOUNDARY

This EPD covers the life-cycle modules listed in the following table.

Modules not declared = MND. Modules not relevant = MNR.

Product stage			Assembly stage		Use stage							End of life stage				Beyond the system boundaries
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction Demolition	Transport	Waste processing	Disposal	Reuse Recovery Recycling
✓	✓	✓	✓	✓	MND	MND	MND	MND	MND	MND	MND	✓	✓	✓	✓	✓

LIFE-CYCLE STAGES DIAGRAM



MANUFACTURING AND PACKAGING (A1-A3)

The environmental impacts considered for the product stage cover the manufacturing of raw materials used in the production as well as packaging materials and other ancillary materials. Also, fuels used by machines, and handling of waste formed in the production processes at the manufacturing facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

The paint production process at the manufacturing facility consists of several separate steps. In the initial step solvents, powders, and additives are mixed together and then dispersed to a homogeneous paste. The following step is the let-down stage: binders, solvents, additives, etc. are mixed with the paste to obtain a ready-to-use paint. At the next stage, compliance of the product with specified quality parameters is checked. In the packaging stage, paint is filled into cans of various sizes on filling machines, loaded onto pallets by robots, and transferred to the warehouse. Eventually, the paint is transported to retailers and construction sites.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts occurred from final products delivery to construction site cover fuel direct exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions.

The transportation distance is defined according to EPD Hub PCR. Average distance of transportation from production plant to building site is assumed to be 179 km and the transportation method is assumed to be lorry. Transportation does not cause losses as products are packaged properly.

PRODUCT USE AND MAINTENANCE (B1-B7)

This EPD does not cover the use phase.

Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

Paint is usually not removed from substrates at end-of life, so the consumption of energy, natural resources, and the impacts of demolition are assumed to be negligible. All of the end-of-life product is assumed to be sent to the closest waste treatment facilities.

For metal substrates, it is assumed that 100% of the dried paint burns up in the metal recycling process.

The packaging materials (wooden pallets, metal cans, cardboard, and packaging film) are sent to recycling and have benefits beyond the system boundary.

LIFE-CYCLE ASSESSMENT

CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the reference standard and the applied PCR. The study does not exclude any hazardous materials or substances. The study includes all major raw material and energy consumption. All inputs and outputs of the unit processes, for which data is available for, are included in the calculation. There is no neglected unit process more than 1% of total mass or energy flows. The module specific total neglected input and output flows also do not exceed 5% of energy usage or mass.

ALLOCATION, ESTIMATES AND ASSUMPTIONS

Allocation is required if some material, energy, and waste data cannot be measured separately for the product under investigation. All allocations are done as per the reference standards and the applied PCR. In this study, allocation has been done in the following ways:

Data type	Allocation
Raw materials	No allocation
Packaging materials	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	Multiple products
Averaging method	Represented by the highest production volume product
Variation in GWP-fossil for A1-A3	37 %

This EPD is made for a representative product with the highest production volume. The variation in GWP-fossil impact for A1-A3 modules among the products is +26% for the highest impact product and -21% for the lowest impact product. The individual A1-A3 GWP-fossil impacts of the products and their difference from the representative product are listed in the Annex.

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. Ecoinvent v3.8 and One Click LCA databases were used as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total ¹⁾	kg CO ₂ e	4,26E+00	1,76E-01	7,05E-01	5,14E+00	3,54E-02	8,32E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	2,37E+00	-1,24E-01
GWP – fossil	kg CO ₂ e	4,24E+00	1,76E-01	7,10E-01	5,13E+00	3,54E-02	3,77E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	2,39E+00	-1,27E-01
GWP – biogenic	kg CO ₂ e	1,47E-02	2,23E-05	-4,81E-03	9,91E-03	0,00E+00	4,54E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	-1,34E-02	2,79E-03
GWP – LULUC	kg CO ₂ e	8,57E-04	8,10E-05	3,66E-04	1,30E-03	1,49E-05	3,74E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	4,70E-04	-1,84E-05
Ozone depletion pot.	kg CFC ₁₁ e	3,11E-07	4,14E-08	1,27E-07	4,80E-07	8,38E-09	3,69E-10	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	3,45E-07	-4,94E-09
Acidification potential	mol H ⁺ e	5,13E-02	1,80E-03	2,98E-03	5,61E-02	1,06E-04	1,51E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	4,70E-03	-5,19E-04
EP-freshwater ²⁾	kg Pe	3,21E-03	1,18E-06	8,86E-05	3,30E-03	2,68E-07	1,06E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	1,48E-05	-5,22E-06
EP-marine	kg Ne	3,73E-03	4,38E-04	5,72E-04	4,74E-03	2,17E-05	5,12E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	7,96E-04	-1,06E-04
EP-terrestrial	mol Ne	3,63E-02	4,86E-03	6,27E-03	4,74E-02	2,41E-04	3,94E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	8,96E-03	-1,24E-03
POCP (“smog”) ³⁾	kg NMVOCe	1,73E-02	1,40E-03	4,90E-03	2,36E-02	9,38E-05	4,02E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	2,68E-03	-6,32E-04
ADP-minerals & metals ⁴⁾	kg Sbe	1,06E-05	3,92E-07	4,45E-06	1,55E-05	1,26E-07	7,47E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	8,40E-06	-2,37E-06
ADP-fossil resources	MJ	2,98E+01	2,65E+00	5,54E+00	3,80E+01	5,41E-01	3,56E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	1,76E+01	-1,21E+00
Water use ⁵⁾	m ³ e depr.	2,41E+00	1,15E-02	5,02E-01	2,92E+00	2,64E-03	6,92E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	2,56E-01	-2,43E-02

1) GWP = Global Warming Potential

2) EP = Eutrophication potential. Required characterisation method and data are in kg P-eq. Multiply by 3,07 to get PO4e

3) POCP = Photochemical ozone formation

4) ADP = Abiotic depletion potential

5) EN 15804+A2 disclaimer for Abiotic depletion and Water use and optional indicators except Particulate matter and Ionizing radiation, human health. The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

ADDITIONAL (OPTIONAL) ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Particulate matter	Incidence	1,43E-07	1,66E-08	2,73E-08	1,87E-07	3,22E-09	3,00E-10	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	4,00E-08	-8,32E-09
Ionizing radiation ⁶⁾	kBq U235e	1,28E-01	1,34E-02	2,03E-01	3,44E-01	2,85E-03	3,79E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	1,01E-01	3,95E-03
Ecotoxicity (freshwater)	CTUe	6,22E+01	2,10E+00	1,56E+01	7,99E+01	4,58E-01	3,11E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	4,21E+01	-4,40E+00
Human toxicity, cancer	CTUh	1,24E-07	7,17E-11	2,80E-09	1,27E-07	1,39E-11	5,67E-12	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	6,30E-10	1,04E-09
Human tox. non-cancer	CTUh	1,15E-06	2,02E-09	1,38E-08	1,17E-06	4,51E-10	9,29E-11	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	2,11E-08	-2,98E-09
SQP ⁷⁾	-	8,82E+00	2,50E+00	4,99E+00	1,63E+01	4,69E-01	1,01E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	4,19E+00	-9,66E-01

6) EN 15804+A2 disclaimer for Ionizing radiation, human health. 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

7) SQP = Land use related impacts/soil quality.

USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Renew. PER as energy ⁸⁾	MJ	1,67E+00	3,23E-02	1,27E+00	2,97E+00	8,07E-03	3,20E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	4,09E-01	-2,13E-01
Renew. PER as material	MJ	0,00E+00	0,00E+00	1,00E-01	1,00E-01	0,00E+00	-1,00E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-8,10E-02
Total use of renew. PER	MJ	1,67E+00	3,23E-02	1,37E+00	3,07E+00	8,07E-03	-9,73E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	4,09E-01	-2,94E-01
Non-re. PER as energy	MJ	2,09E+01	2,65E+00	9,76E+00	3,33E+01	5,41E-01	3,56E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	1,76E+01	-1,13E+00
Non-re. PER as material	MJ	8,96E+00	0,00E+00	8,01E-02	9,04E+00	0,00E+00	-8,64E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	-3,98E-01	2,55E-04
Total use of non-re. PER	MJ	2,98E+01	2,65E+00	9,84E+00	4,23E+01	5,41E-01	-8,60E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	1,72E+01	-1,13E+00
Secondary materials	kg	4,50E-02	8,52E-04	5,16E-02	9,75E-02	1,86E-04	4,37E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	2,75E-02	7,39E-02
Renew. secondary fuels	MJ	5,59E-04	6,04E-06	2,45E-03	3,02E-03	1,95E-06	2,49E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	3,68E-05	-1,15E-05
Non-ren. secondary fuels	MJ	0,00E+00	0,00E+00	4,60E-05	4,60E-05	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m ³	5,95E-02	3,18E-04	7,73E-03	6,75E-02	7,31E-05	1,78E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	6,58E-03	-3,09E-04

8) PER = Primary energy resources.

END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste	kg	3,05E-01	3,06E-03	1,67E-01	4,75E-01	6,36E-04	2,69E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	9,53E-01	-4,10E-02
Non-hazardous waste	kg	4,78E+00	4,90E-02	9,22E-01	5,75E+00	1,13E-02	7,79E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-2,04E-01
Radioactive waste	kg	6,26E-05	1,84E-05	7,58E-05	1,57E-04	3,71E-06	2,21E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,74E-07

END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	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	0,00E+00	1,60E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for energy rec	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy	MJ	0,00E+00	0,00E+00	9,07E-01	9,07E-01	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

ENVIRONMENTAL IMPACTS – EN 15804+A1, CML / ISO 21930

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming Pot.	kg CO ₂ e	4,20E+00	1,74E-01	6,99E-01	5,07E+00	3,51E-02	5,10E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	2,38E+00	-1,20E-01
Ozone depletion Pot.	kg CFC ₁₁ e	2,89E-07	3,28E-08	1,48E-07	4,70E-07	6,64E-09	2,97E-10	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	2,93E-07	-5,47E-09
Acidification	kg SO ₂ e	7,18E-02	1,45E-03	2,44E-03	7,57E-02	8,64E-05	1,20E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	3,91E-03	-4,20E-04
Eutrophication	kg PO ₄ ³ e	5,30E-03	2,00E-04	1,17E-03	6,67E-03	1,89E-05	1,55E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	1,03E-03	-2,13E-04
POCP (“smog”)	kg C ₂ H ₄ e	4,94E-03	4,42E-05	1,82E-03	6,81E-03	4,24E-06	1,01E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	1,55E-04	-7,18E-05
ADP-elements	kg Sbe	3,54E-05	3,82E-07	4,51E-06	4,03E-05	1,23E-07	7,42E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	6,35E-06	-2,36E-06
ADP-fossil	MJ	8,76E+01	2,65E+00	1,15E+01	1,02E+02	5,41E-01	3,56E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	1,76E+01	-1,21E+00

ENVIRONMENTAL IMPACTS – TRACI 2.1. / ISO 21930

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming Pot.	kg CO ₂ e	1,60E+00	1,75E-01	6,76E-01	2,45E+00	3,51E-02	4,84E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	2,37E+00	-1,21E-01
Ozone Depletion	kg CFC ₁₁ e	1,15E-07	3,28E-08	1,40E-07	2,87E-07	6,64E-09	2,97E-10	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	2,93E-07	-5,46E-09
Acidification	kg SO ₂ e	1,53E+00	8,27E-02	8,45E-02	1,70E+00	4,74E-03	7,01E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	2,07E-01	-2,35E-02
Eutrophication	kg Ne	8,15E-04	1,00E-04	2,14E-04	1,13E-03	1,26E-05	2,60E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	4,11E-04	-1,85E-05
POCP (“smog”)	kg O ₃ e	3,59E-03	1,13E-03	2,05E-02	2,52E-02	5,63E-05	8,77E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	2,03E-03	-3,04E-04
ADP-fossil	MJ	3,59E+00	3,68E-01	5,92E-01	4,55E+00	7,44E-02	3,64E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	2,30E+00	-7,03E-02

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online

This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Magaly González Vázquez, as an authorized verifier acting for EPD Hub Limited

15.12.2023



ANNEX

Product	A1-A3 GWP-fossil kg CO ₂ e / liter	Difference from representative product
Temacoat GPL-S MIO	4.08	-21%
Temadur 10	5.52	8%
Temadur 20	5.60	9%
Temadur 50	5.13	-
Temadur 90	5.69	11%
Temadur SC-F 20	6.10	19%
Temadur SC-F 35	5.12	0%
Temadur SC-F 50	6.14	20%
Temadur SC-F 80	6.48	26%
Temadur SC-M 80	5.74	12%
Temathane PC 50	5.47	7%
Temathane PC 80	6.01	17%