Environmental Product Declaration

In accordance with ISO 14025, EN 15804+A1 and EN 16810 for:

Safety flooring - TARKETT

Programme:	The International EPD® System www.environdec.com
Programme operator:	EPD International AB
EPD registration number:	S-P-01505
ECO EPD Ref. number:	00001046
Publication date:	2019-11-22
Validity date:	2024-11-22
Geographical scope:	Europe

Tarkett

General information

Information about the organization

Owner of the EPD: Tarkett France. Axel ROY, +33 (0)141 204 074, axel.roy@tarkett.com, Tarkett La Défense, 1 Terrasse Bellini 92400 Paris
Description of the organisation: ISO 9001, ISO 14001, ISO 50001, WCM manufacturing site
Name and location of production sites: Lenham, United Kingdom/ Ronneby, Sweden

About the company

With an international coverage and a wide range of products, Tarkett has over 130 years of experience in providing integrated solutions for floorings to professionals and end users.
Many of the most important architectural firms in the world and building professionals have chosen Tarkett for the value of its products and for its consultation and service abilities. Therefore, Tarkett floorings and sport surfaces are present in several prestigious architectural reference points. Tarkett offers integrated solutions for floorings, able to meet the particular needs of customers. Our wide range of designs, colors and models provides an infinite series of possibilities, contributing to create a positive environment and a better quality of life for people.
Tarkett operates with the utmost respect for the environment towards the realization of eco-friendly products.
Tarkett's commitment to the environment is woven throughout its business. Cradle-to-Cradle principles are, in fact, the basis of the design and production of every solution. Particularly, the lifecycle analysis is used to continuously improve the production process, and so the products until their use stage, disposal and recycling. The commitment to the environment is also proven by the accession to the Circular Economy 100 program, where Tarkett group, with a network of companies, is working to develop a circular economy model based on the reuse of materials and preservation of natural resources. The development of products that can be reused within internal production cycles, or external ones in case of other individuals, has been an integral part of the business strategy aimed at sustainability for many years. The WCM (World Class Manufacturing) management system has been developed in 2009, and it includes the environmental pillar aimed to the elimination of losses and to the growth of process efficiency.

Product information

Product name: Safetred Aqua, Safetred Design Compact, Safetred Ion Linen Compact, Safetred Universal, Safetred Design Loose-lay, Safetred Ion Contrast Compact, Safetred Spectrum, Safetred Universal Plus, Safetred Ion Contradt Loose-lay, Granit Safe.T

Product identification: Poly (vinyl chloride) safety flooring (EN 13845)

Product description:
The products above are safety heterogeneous and homogeneous PVC floorings developed by Tarkett.
The following figure shows an example of Safety flooring:

Safety flooring

UN CPC code: APE/NAF - 2223Z

Geographical scope: Europe

Range of application

These products are classified in accordance with EN 13845 to be installed in various areas of application, such as: healthcare, education, commercial, education.

LCA information

Functional unit / declared unit:

1m2 of floor covering with a reference service life (RSL) of 1 year, for specified characteristics application and use areas according to EN13845 and EN ISO 10874

Reference service life:

1 year

Time representativeness:

2018

Database(s) and LCA software used:

SimaPro 8.5
Database v.84

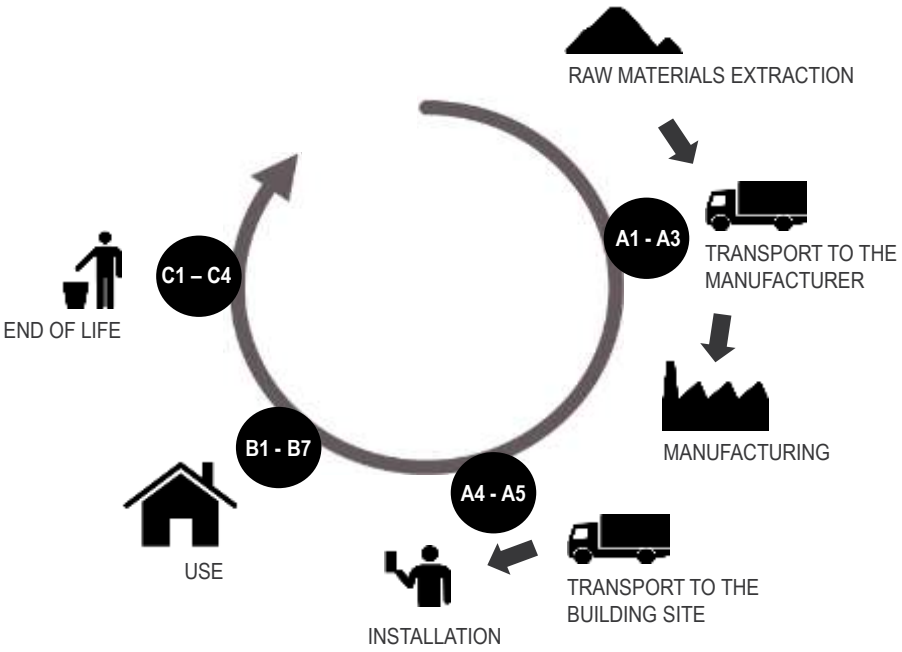
Description of system boundaries:

Cradle to grave

System boundaries

The system boundary is based on the EN 15804 description.
Production stage : A1 – A3: includes the provision of all raw materials, transport to the production site and energy and water consumption during the manufacturing of the product, packaging of final product, the different air emissions, as well as processing of waste generated by the factory.

Construction stage: A4 – A5: includes the transport from the factory to the final customer, the installation of the product, as well as all consumables and energy required and processing of waste generated during the installation.
Use stage B1 – B7: includes provision and transport of all materials, products and services related to the use phase of the product, as well as their related energy and water consumption, and the processing of any resulting waste.
End of life stage C1 – C4: includes provision and transport of all materials, products and services related to the end of life phase of the product, including energy and water consumption, as well as the end of life processing of the product.



Included/excluded life stages

	Production Stage			Construction Process Stage		Use Stage							End-of-Life Stage			
	Raw material supply (extraction, processing, recycled material)	Transport to manufacturer	Manufacturing	Transport to building site	Installation into building	Use / application	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction / demolition	Transport to EoL	Waste processing for reuse, recovery or recycling	Disposal
Modules	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4
Accounted for:	X	X	X	X	X	MND	X	MND	MND	MND	MND	MND	X	X	X	X

X Module included in the study
MND : Module not declared

Use stage: Floor coverings do not contribute to modules B1 and B3 to B7 according to the standard EN 16810.

Cut-off criteria

The cut-off criteria shall be 1% of renewable and non-renewable primary energy usage and 1% of the total mass of that unit process. The total neglected input flows per module shall be a maximum of 5% of energy usage and mass.
For this study, all input and output flows have been considered at 100%, including raw materials as per the product composition provided by the manufacturer and packaging of raw materials as well as the final product.

LCA data

As a general rule, specific data derived from specific production processes or average data derived from specific production processes have been used as the first choice as a basis for calculating an EPD.
To model the life cycle of the product in question, the software SimaPro 8.5, developed by PRé, has been used in conjunction with the LCA database ecoinvent v3.4.

Data quality

The objective of this evaluation is to evaluate the environmental impacts generated by the safety product floor covering throughout its entire life cycle. To this end, ISO 14040, ISO 14044 and EN 15804 have been met regarding the quality of data on different following criteria:

The time factor, the life cycle inventory data used come from:

- Data collected specifically for this study on Tarkett sites. Data sets are based on 1 year averaged data.

- In the absence of collected data, generic data from the ecoinvent V3.4 cut-off by classification database. This is regularly updated and is representative of current processes

Technological Coverage

- Tarkett technologies used for the manufacture methods of the product.
- European technology in the case of use of generic data.

Geographical Coverage

- Data come from production sites of Tarkett
- The generic data come from the ecoinvent database, representative of the European processes.

Allocation

The overall values for material and energy consumptions of factories during a period of one year have been divided by the annual production of each product to supply a value per square meter of flooring produced. All factories data are measured in square meters, and it is assumed that the process consumptions are governed by area of flooring processed rather than mass.

Comparability

Basically, a comparison or an evaluation of EPD data is only possible if all the data sets to be compared were created according to /EN 15804/ and the building context, respectively the product-specific characteristics of performance, are taken into account.

Content declaration

Product

According to PCR 2012-01 v2.3, several similar products can be included in the same EPD if "differences between the mandatory impact indicators lower than ±10% (concerning A1-A3) could be presented using the impacts of a representative product". The next table presents how products are grouped :

Group 1	Group 2	Group 3	Group 4
Safetred Aqua	Safetred Design Loose-lay	Safetred Ion Contrast Loose-lay	Granit Safe.T
Safetred Design Compact	Safetred Ion Contrast Compact	-	-
Safetred Ion Linen Compact	Safetred Spectrum	-	-
Safetred Universal	Safetred Universal Plus	-	-

Products	Thickness (mm)	Mass (kg/m²)	Recycled content (%)	Factories city
Safetred Aqua	2.00E+00	3.20E+00	40	Lenham (United Kingdom)
Safetred Design Compact	2.00E+00	3.17E+00	40	Lenham (United Kingdom)
Safetred Ion Linen Compact	2.00E+00	3.17E+00	40	Lenham (United Kingdom)
Safetred Universal	2.00E+00	3.23E+00	40	Lenham (United Kingdom)
Safetred Design Loose-lay	2.35E+00	3.24E+00	40	Lenham (United Kingdom)
Safetred Ion Contrast Compact	2.00E+00	2.90E+00	40	Lenham (United Kingdom)
Safetred Spectrum	2.00E+00	3.23E+00	40	Lenham (United Kingdom)
Safetred Universal Plus	2.50E+00	3.23E+00	34	Lenham (United Kingdom)
Safetred Ion Contrast Loose-lay	2.35E+00	2.97E+00	40	Lenham (United Kingdom)
Granit Safe.T	2.00E+00	2.95E+00	0	Ronneby (Sweden)

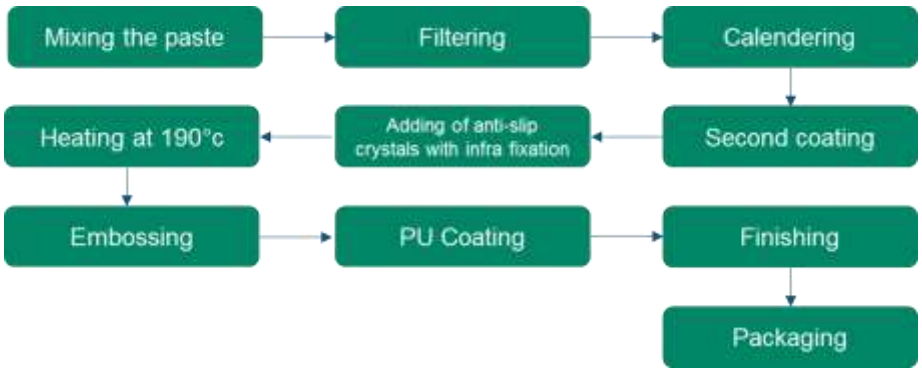
Chemical composition for all representative products are presented in the following table:

Chemical substances for each representative product	Group 1	Group 2	Group 3	Group 4	Substance concerned with REACH
Non Recycled PVC (kg/m²)	4.10E-01	4.20E-01	5.65E-01	1.36E+00	/
Recycled PVC (kg/m²)	2.19E+00	2.13E+00	1.50E+00	0.00E+00	/
DINCH (kg/m²)	1.12E-01	1.17E-01	1.85E-01	4.10E-01	/
Benzoic acid (kg/m²)	7.60E-02	8.20E-02	9.50E-02	0.00E+00	/
Epoxidised soya bean oil (kg/m²)	2.50E-01	2.60E-01	1.80E-02	1.20E-01	/
Stabilizers (kg/m²)	0.00E+00	0.00E+00	0.00E+00	3.00E-02	/
Mineral fillers (kg/m²)	2.59E-01	2.80E-01	4.50E-01	9.405E-01	/
Titanium dioxide (kg/m²)	1.00E-02	1.10E-02	1.00E-02	3.00E-02	/
Pigments (kg/m²)	5.00E-03	6.00E-03	1.00E-02	0.00E+00	/
Polyurethane (kg/m²)	1.60E-02	1.60E-02	1.60E-02	3.00E-02	/
Aluminium oxide (kg/m²)	9.10E-02	1.19E-01	7.00E-03	0.00E+00	/
Surfactant (kg/m²)	1.00E-03	1.00E-03	1.00E-03	0.00E+00	/
Polyester (kg/m²)	0.00E+00	5.50E-02	7.00E-02	0.00E+00	/

Product manufacturing

Production process

The production of the flooring is presented in the following figure:



Production waste

Waste type	Group 1	Group 2	Group 3	Group 4
Non hazardous waste to incineration	3.12E-02	3.12E-02	3.12E-02	3.51E-02
Hazardous waste to external recycling	2.74E-02	2.74E-02	2.74E-02	0.00E+00
Non hazardous waste to external recycling	2.42E-02	2.42E-02	2.42E-02	2.62E-02
Non hazardous waste-water to external treatment	0.00E+00	0.00E+00	0.00E+00	7.60E-04

NB: Post manufacturing recycling concerns the recycling of the losses inside the plant production. Therefore, there is no end-of-life impact on losses (excepted the recycling preparation)

Health, safety and environmental aspects during production

Tapiflex productions sites comply with the ISO 14001 Environmental Management System and the ISO 9001 Quality Management System.

Packaging

Type	Group 1	Group 2	Group 3	Group 4
PP Packaging (kg/m²)	0.00E+00	0.00E+00	0.00E+00	5.30E-03
PEHD Packaging (kg/m²)	1.00E-03	1.00E-03	1.00E-03	8.04E-02
Cardboard Packaging (kg/m²)	5.00E-02	5.00E-02	5.00E-02	6.34E-03
PELD Packaging (kg/m²)	5.50E-03	5.50E-03	5.50E-03	1.55E-02

Delivery and installation

Delivery

The average distribution distance between the factories and the installation site is presented in the following table. It has been calculated considering the average distance between European countries where Tarkett is selling products and factories. The distribution is made by truck.

	Group 1	Group 2	Group 3	Group 4
Average distance of delivery [km]	5.03E+02	5.03E+02	5.03E+02	7.66E+02

Installation

The different parts of the flooring are cut to fit the surface to fit the surface to be covered and they are arranged together so that they can fit perfectly between them on the floor.The different parts of the flooring are glued on the subfloor then they are welded together. The Loose-lay products do not need any glue to be installed. It is taken into account in the installation scenario, depending on the production surface of each product.

Description	Amount	Unit
Electricity consumption (Group 1, 4)	3.35E-02	kWh/m²
Electricity consumption (Group 2)	3.32E-02	kWh/m²
Electricity consumption (Group 3)	0.00E+00	kWh/m²
Acrylic adhesive consumption (Group 1, 4)	2.50E-01	kg/m²
Acrylic adhesive consumption (Group 2)	2.48E-01	kg/m²
Acrylic adhesive consumption (Group 3)	0.00E+00	kg/m²

Waste

During the installation approximately 10% of the flooring is lost as off-cuts. All flooring losses are sent to recycling.

Packaging

50 % of the packaging materials goes to incineration and 50 % goes to landfill.

Use Stage

Reference Service Life (RSL)

For this product, the stated RSL is 1 year. It should be noted, however, that the service life of a heterogeneous poly (vinyl chloride) flooring on foam may vary depending on the amount and nature of floor traffic and the type and frequency of maintenance. The manufacturer has provided this service life on the basis of his experience of flooring manufacture and supply. This RSL is applicable as long as the product use complies with that defined by ISO 14041 and ISO 10874 in accordance with the product's classification. The service lifetime recommended by Tarkett is 20 years.

Cleaning and maintenance

The maintenance step concerns the cleaning of the floor. Tarkett has provided the recommended maintenance routine for the product throughout the reference life. Water, detergent and electricity consumption of the cleaning machine are considered in the LCA study:

- Common maintenance : 2 time / week
- Periodical maintenance: 2 time / year

Description	Amount	Unit
Electricity consumption	2.81E-01	kWh/year/m^2
Water consumption	1.10E+00	L/year/m^2
Detergent consumption	1.63E-01	L/year/m^2

Prevention of structural damage

To avoid excessive wear, usage should be restricted to the stated areas of application as outlined by the norm ISO 10874.

End of Life

For the purpose of this LCA, it has been assumed that 100% of the product is sent to landfill at the end of its useful life. The transport between construction site and landfill facility is by truck, with an estimated distance of 30 km (according to the FDP01-015).

Data Validation

To validate data, a validity framework has been established. A specific average product has been determined for each category. These four average products are formed by every elements of LCI. Based on results on all environmentals indicators, it has been shown that these average products are representative of, respectively, four, four, one and one product(s) each. Because there is only one product in two categories, impacts of their representative product are the same as theirs. So, following figures do not show them. These are data from these average products which are presented in this EPD.

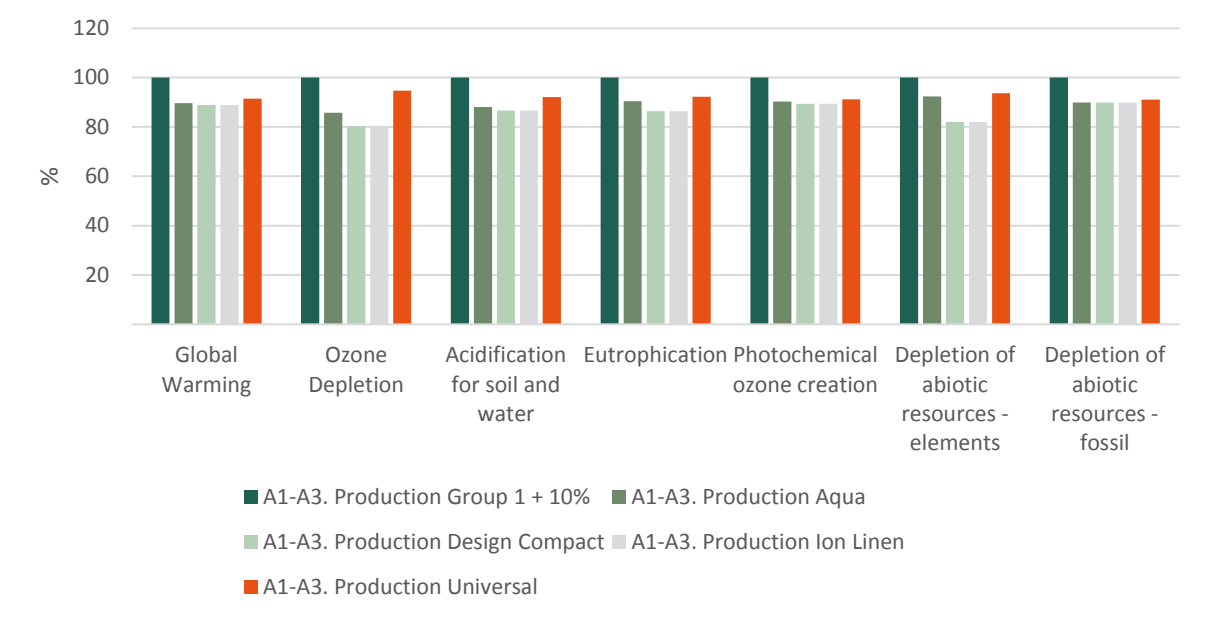


Figure 1: Comparison between Safetred Aqua, Safetred Design Compact, Safetred Ion Linen Compact, Safetred Universal and the average one

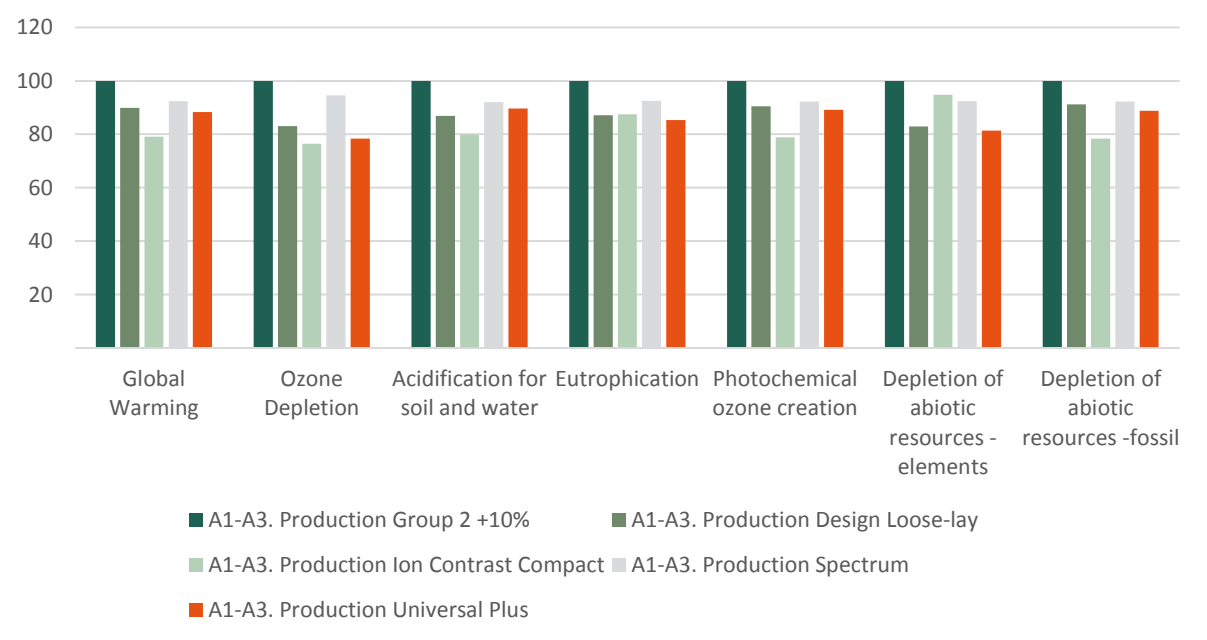


Figure 2: Comparison between Safetred Design Loose-lay, Safetred Ion Contrast Compact, Safetred Spectrum, Safetred Universal Plus and the average one

Environmental performance

Potential environmental impact

Representative product for products belonging to Group 1 (Safetred Aqua, Safetred Design Compact, Safetred Ion Linen Compact, Safetred Universal)															
PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage			
		Total Production	Transport	installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction	Transport	Waste processing	Disposal
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4
Global Warming	kg CO2 eq	8,80E+00	2,66E-01	1,54E+00	MND	5,72E-01	MND	MND	MND	MND	MND	0,00E+00	1,57E-02	0,00E+00	2,14E-01
Ozone Depletion	kg CFC-11 eq	2,88E-07	4,95E-08	9,00E-08	MND	4,09E-08	MND	MND	MND	MND	MND	0,00E+00	2,91E-09	0,00E+00	8,97E-09
Acidification of soil and water	kg SO2 eq.	2,74E-02	8,41E-04	1,01E-02	MND	2,29E-03	MND	MND	MND	MND	MND	0,00E+00	5,00E-05	0,00E+00	1,99E-04
Eutrophication	kg PO4--- eq	3,86E-03	1,38E-04	8,47E-04	MND	1,48E-03	MND	MND	MND	MND	MND	0,00E+00	8,29E-06	0,00E+00	7,40E-05
Photochemical ozone creation	kg ethylene	8,31E-03	1,37E-04	1,43E-03	MND	3,44E-04	MND	MND	MND	MND	MND	0,00E+00	8,12E-06	0,00E+00	6,66E-05
Depletion of abiotic resources - elements	kg antimony	7,96E-06	8,31E-07	6,73E-06	MND	1,56E-06	MND	MND	MND	MND	MND	0,00E+00	4,87E-08	0,00E+00	4,41E-08
Depletion of abiotic resources - fossil	MJ. net CV	1,65E+02	4,01E+00	2,61E+01	MND	3,50E+00	MND	MND	MND	MND	MND	0,00E+00	2,36E-01	0,00E+00	7,69E-01

Representative product for products belonging to Group 2 (Safetred Design Loose-lay, Safetred Ion Contrast Compact, Safetred Spectrum, Safetred Universal Plus)															
PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage			
		Total Production	Transport	installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction	Transport	Waste processing	Disposal
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4
Global Warming	kg CO2 eq	9,15E+00	2,66E-01	1,57E+00	MND	5,72E-01	MND	MND	MND	MND	MND	0,00E+00	1,69E-02	0,00E+00	2,14E-01
Ozone Depletion	kg CFC-11 eq	3,34E-07	4,95E-08	9,39E-08	MND	4,09E-08	MND	MND	MND	MND	MND	0,00E+00	3,14E-09	0,00E+00	8,96E-09
Acidification of soil and water	kg SO2 eq.	2,89E-02	8,41E-04	1,02E-02	MND	2,29E-03	MND	MND	MND	MND	MND	0,00E+00	5,38E-05	0,00E+00	1,99E-04
Eutrophication	kg PO4--- eq	4,19E-03	1,38E-04	8,75E-04	MND	1,48E-03	MND	MND	MND	MND	MND	0,00E+00	8,93E-06	0,00E+00	7,40E-05
Photochemical ozone creation	kg ethylene	8,53E-03	1,37E-04	1,45E-03	MND	3,44E-04	MND	MND	MND	MND	MND	0,00E+00	8,75E-06	0,00E+00	6,66E-05
Depletion of abiotic resources - elements	kg antimony	9,37E-06	8,31E-07	6,82E-06	MND	1,56E-06	MND	MND	MND	MND	MND	0,00E+00	5,25E-08	0,00E+00	4,41E-08
Depletion of abiotic resources - fossil	MJ. net CV	1,69E+02	4,01E+00	2,65E+01	MND	3,50E+00	MND	MND	MND	MND	MND	0,00E+00	2,54E-01	0,00E+00	7,68E-01

Safetred Ion Contrast Loose-lay															
PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage			
		Total Production	Transport	installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction	Transport	Waste processing	Disposal
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4
Global Warming	kg CO2 eq	8,62E+00	2,46E-01	8,56E-01	MND	5,72E-01	MND	MND	MND	MND	MND	0,00E+00	1,45E-02	0,00E+00	1,84E-01
Ozone Depletion	kg CFC-11 eq	3,44E-07	4,58E-08	3,07E-08	MND	4,09E-08	MND	MND	MND	MND	MND	0,00E+00	2,69E-09	0,00E+00	7,70E-09
Acidification of soil and water	kg SO2 eq.	2,79E-02	7,79E-04	2,74E-03	MND	2,29E-03	MND	MND	MND	MND	MND	0,00E+00	4,62E-05	0,00E+00	1,71E-04
Eutrophication	kg PO4--- eq	4,45E-03	1,28E-04	4,61E-04	MND	1,48E-03	MND	MND	MND	MND	MND	0,00E+00	7,67E-06	0,00E+00	6,36E-05
Photochemical ozone creation	kg ethylene	7,87E-03	1,27E-04	7,87E-04	MND	3,44E-04	MND	MND	MND	MND	MND	0,00E+00	7,51E-06	0,00E+00	5,72E-05
Depletion of abiotic resources - elements	kg antimony	1,35E-05	7,70E-07	1,29E-06	MND	1,56E-06	MND	MND	MND	MND	MND	0,00E+00	4,51E-08	0,00E+00	3,78E-08
Depletion of abiotic resources - fossil	MJ. net CV	1,56E+02	3,72E+00	1,53E+01	MND	3,50E+00	MND	MND	MND	MND	MND	0,00E+00	2,18E-01	0,00E+00	6,60E-01

Granit Safe.T															
PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage			
		Total Production	Transport	installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction	Transport	Waste processing	Disposal
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4
Global Warming	kg CO2 eq	6,79E+00	3,79E-01	1,37E+00	MND	5,72E-01	MND	MND	MND	MND	MND	0,00E+00	1,44E-02	0,00E+00	1,98E-01
Ozone Depletion	kg CFC-11 eq	3,62E-07	7,05E-08	1,03E-07	MND	4,09E-08	MND	MND	MND	MND	MND	0,00E+00	2,67E-09	0,00E+00	8,29E-09
Acidification of soil and water	kg SO2 eq.	2,60E-02	1,20E-03	1,00E-02	MND	2,29E-03	MND	MND	MND	MND	MND	0,00E+00	4,59E-05	0,00E+00	1,84E-04
Eutrophication	kg PO4--- eq	5,93E-03	1,97E-04	1,07E-03	MND	1,48E-03	MND	MND	MND	MND	MND	0,00E+00	7,62E-06	0,00E+00	6,85E-05
Photochemical ozone creation	kg ethylene	6,24E-03	1,95E-04	1,24E-03	MND	3,44E-04	MND	MND	MND	MND	MND	0,00E+00	7,46E-06	0,00E+00	6,16E-05
Depletion of abiotic resources - elements	kg antimony	6,46E-05	1,18E-06	1,25E-05	MND	1,56E-06	MND	MND	MND	MND	MND	0,00E+00	4,48E-08	0,00E+00	4,08E-08
Depletion of abiotic resources - fossil	MJ. net CV	1,10E+02	5,72E+00	2,11E+01	MND	3,50E+00	MND	MND	MND	MND	MND	0,00E+00	2,17E-01	0,00E+00	7,11E-01

Use of resources

Representative product for products belonging to Group 1 (Safetred Aqua, Safetred Design Compact, Safetred Ion Linen Compact, Safetred Universal)															
PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage			
		Total Production	Transport	Installation	Use	Maintenance	Repair	Replacement	refurbishment	Operational energy use	Operational water use	De-construction	Transport	Waste processing	Disposal
		A1-A3	A4	A5	B1	B2.	B3	B4	B5	B6	B7	C1	C2.	C3	C4
Renewable primary energy excl. RM	MJ. net CV	7,69E+00	5,99E-02	1,65E+00	MND	1,23E+00	MND	MND	MND	MND	MND	0,00E+00	3,51E-03	0,00E+00	2,45E-02
Renewable primary energy used as RM	MJ. net CV	1,63E+00	0,00E+00	1,63E-01	MND	2,55E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total renewable primary energy	MJ. net CV	9,32E+00	5,99E-02	1,82E+00	MND	3,78E+00	MND	MND	MND	MND	MND	0,00E+00	3,51E-03	0,00E+00	2,45E-02
Non renewable primary energy excl. RM	MJ. net CV	1,44E+02	4,11E+00	1,75E+01	MND	5,24E+00	MND	MND	MND	MND	MND	0,00E+00	2,42E-01	0,00E+00	8,22E-01
Non renewable primary energy used as RM	MJ. net CV	5,63E+01	0,00E+00	1,35E+01	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total non renewable primary energy	MJ. net CV	2,00E+02	4,11E+00	3,10E+01	MND	5,23E+00	MND	MND	MND	MND	MND	0,00E+00	2,42E-01	0,00E+00	8,22E-01
Use of secondary material	kg	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable secondary fuels	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non renewable secondary fuels	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Net use of fresh water	m3	5,33E-01	7,73E-04	6,94E-02	MND	2,44E-02	MND	MND	MND	MND	MND	0,00E+00	4,54E-05	0,00E+00	9,73E-04

Representative product for products belonging to Group 2 (Safetred Design Loose-lay, Safetred Ion Contrast Compact, Safetred Spectrum, Safetred Universal Plus)															
PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage			
		Total Production	Transport	Installation	Use	Maintenance	Repair	Replacement	refurbishment	Operational energy use	Operational water use	De-construction	Transport	Waste processing	Disposal
		A1-A3	A4	A5	B1	B2.	B3	B4	B5	B6	B7	C1	C2.	C3	C4
Renewable primary energy excl. RM	MJ. net CV	8,04E+00	5,99E-02	1,68E+00	MND	1,23E+00	MND	MND	MND	MND	MND	0,00E+00	3,78E-03	0,00E+00	2,45E-02
Renewable primary energy used as RM	MJ. net CV	1,67E+00	0,00E+00	1,67E-01	MND	2,55E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total renewable primary energy	MJ. net CV	9,71E+00	5,99E-02	1,85E+00	MND	3,78E+00	MND	MND	MND	MND	MND	0,00E+00	3,78E-03	0,00E+00	2,45E-02
Non renewable primary energy excl. RM	MJ. net CV	1,48E+02	4,11E+00	1,78E+01	MND	5,24E+00	MND	MND	MND	MND	MND	0,00E+00	2,60E-01	0,00E+00	8,21E-01
Non renewable primary energy used as RM	MJ. net CV	5,73E+01	0,00E+00	1,35E+01	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total non renewable primary energy	MJ. net CV	2,05E+02	4,11E+00	3,14E+01	MND	5,23E+00	MND	MND	MND	MND	MND	0,00E+00	2,60E-01	0,00E+00	8,21E-01
Use of secondary material	kg	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable secondary fuels	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non renewable secondary fuels	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Net use of fresh water	m3	5,31E-01	7,73E-04	6,91E-02	MND	2,44E-02	MND	MND	MND	MND	MND	0,00E+00	4,89E-05	0,00E+00	9,72E-04

Safetred Ion Contrast Loose-lay															
PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage			
		Total Production	Transport	Installation	Use	Maintenance	Repair	Replacement	refurbishment	Operational energy use	Operational water use	De-construction	Transport	Waste processing	Disposal
		A1-A3	A4	A5	B1	B2.	B3	B4	B5	B6	B7	C1	C2.	C3	C4
Renewable primary energy excl. RM	MJ. net CV	9,24E+00	5,55E-02	9,22E-01	MND	1,23E+00	MND	MND	MND	MND	MND	0,00E+00	3,25E-03	0,00E+00	2,10E-02
Renewable primary energy used as RM	MJ. net CV	1,38E+00	0,00E+00	1,38E-01	MND	2,55E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total renewable primary energy	MJ. net CV	1,06E+01	5,55E-02	1,06E+00	MND	3,78E+00	MND	MND	MND	MND	MND	0,00E+00	3,25E-03	0,00E+00	2,10E-02
Non renewable primary energy excl. RM	MJ. net CV	1,36E+02	3,81E+00	1,33E+01	MND	5,24E+00	MND	MND	MND	MND	MND	0,00E+00	2,24E-01	0,00E+00	7,06E-01
Non renewable primary energy used as RM	MJ. net CV	5,06E+01	0,00E+00	5,06E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total non renewable primary energy	MJ. net CV	1,86E+02	3,81E+00	1,83E+01	MND	5,23E+00	MND	MND	MND	MND	MND	0,00E+00	2,24E-01	0,00E+00	7,05E-01
Use of secondary material	kg	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable secondary fuels	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non renewable secondary fuels	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Net use of fresh water	m3	4,69E-01	7,16E-04	4,69E-02	MND	2,44E-02	MND	MND	MND	MND	MND	0,00E+00	4,20E-05	0,00E+00	8,35E-04

Granit Safe.T															
PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage			
		Total Production	Transport	Installation	Use	Maintenance	Repair	Replacement	refurbishment	Operational energy use	Operational water use	De-construction	Transport	Waste processing	Disposal
		A1-A3	A4	A5	B1	B2.	B3	B4	B5	B6	B7	C1	C2.	C3	C4
Renewable primary energy excl. RM	MJ. net CV	2,29E+01	8,53E-02	3,18E+00	MND	1,23E+00	MND	MND	MND	MND	MND	0,00E+00	3,23E-03	0,00E+00	2,26E-02
Renewable primary energy used as RM	MJ. net CV	4,41E+00	0,00E+00	4,41E-01	MND	2,55E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total renewable primary energy	MJ. net CV	2,73E+01	8,53E-02	3,62E+00	MND	3,78E+00	MND	MND	MND	MND	MND	0,00E+00	3,23E-03	0,00E+00	2,26E-02
Non renewable primary energy excl. RM	MJ. net CV	1,16E+02	5,86E+00	1,52E+01	MND	5,24E+00	MND	MND	MND	MND	MND	0,00E+00	2,22E-01	0,00E+00	7,60E-01
Non renewable primary energy used as RM	MJ. net CV	3,42E+01	0,00E+00	1,13E+01	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total non renewable primary energy	MJ. net CV	1,50E+02	5,85E+00	2,65E+01	MND	5,23E+00	MND	MND	MND	MND	MND	0,00E+00	2,22E-01	0,00E+00	7,60E-01
Use of secondary material	kg	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable secondary fuels	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non renewable secondary fuels	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Net use of fresh water	m3	3,72E-01	1,10E-03	5,34E-02	MND	2,44E-02	MND	MND	MND	MND	MND	0,00E+00	4,17E-05	0,00E+00	8,99E-04

Waste production and output flows

Representative product for products belonging to Group 1 (Safetred Aqua, Safetred Design Compact, Safetred Ion Linen Compact, Safetred Universal)															
PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage			
		Total Production	Transport	Installation	Use	Maintenance	Repair	Replacement	refurbishment	Operational energy use	Operational water use	De-construction	Transport	Waste processing	Disposal
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4
Hazardous waste disposed	kg	3,12E-01	2,43E-03	1,27E-01	MND	3,09E-02	MND	MND	MND	MND	MND	0,00E+00	1,42E-04	0,00E+00	7,11E-04
Non hazardous waste disposed	kg	1,49E+00	2,15E-01	6,29E-01	MND	1,49E-01	MND	MND	MND	MND	MND	0,00E+00	1,26E-02	0,00E+00	3,47E+00
Radioactive waste disposed	kg	1,34E-04	2,82E-05	4,87E-05	MND	2,52E-05	MND	MND	MND	MND	MND	0,00E+00	1,66E-06	0,00E+00	5,45E-06
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	2,42E-02	0,00E+00	1,02E-01	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy (electricity)	MJ	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy (steam)	MJ	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00

MND: Module not declared

Representative product for products belonging to Group 2 (Safetred Design Loose-lay, Safetred Ion Contrast Compact, Safetred Spectrum, Safetred Universal Plus)															
PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage			
		Total Production	Transport	Installation	Use	Maintenance	Repair	Replacement	refurbishment	Operational energy use	Operational water use	De-construction	Transport	Waste processing	Disposal
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4
Hazardous waste disposed	kg	3,43E-01	2,43E-03	1,29E-01	MND	3,09E-02	MND	MND	MND	MND	MND	0,00E+00	1,53E-04	0,00E+00	7,11E-04
Non hazardous waste disposed	kg	1,65E+00	2,15E-01	6,40E-01	MND	1,49E-01	MND	MND	MND	MND	MND	0,00E+00	1,35E-02	0,00E+00	3,46E+00
Radioactive waste disposed	kg	1,45E-04	2,82E-05	4,94E-05	MND	2,52E-05	MND	MND	MND	MND	MND	0,00E+00	1,79E-06	0,00E+00	5,45E-06
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	2,42E-02	0,00E+00	1,02E-01	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy (electricity)	MJ	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy (steam)	MJ	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00

MND: Module not declared

Safetred Ion Contrast Loose-lay															
PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage			
		Total Production	Transport	Installation	Use	Maintenance	Repair	Replacement	refurbishment	Operational energy use	Operational water use	De-construction	Transport	Waste processing	Disposal
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4
Hazardous waste disposed	kg	2,56E-01	2,25E-03	2,64E-02	MND	3,09E-02	MND	MND	MND	MND	MND	0,00E+00	1,32E-04	0,00E+00	6,10E-04
Non hazardous waste disposed	kg	1,71E+00	1,99E-01	1,91E-01	MND	1,49E-01	MND	MND	MND	MND	MND	0,00E+00	1,16E-02	0,00E+00	2,98E+00
Radioactive waste disposed	kg	1,51E-04	2,61E-05	1,30E-05	MND	2,52E-05	MND	MND	MND	MND	MND	0,00E+00	1,54E-06	0,00E+00	4,68E-06
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	2,42E-02	0,00E+00	1,02E-01	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy (electricity)	MJ	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy (steam)	MJ	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00

MND: Module not declared

Granit Safe.T															
PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage			
		Total Production	Transport	Installation	Use	Maintenance	Repair	Replacement	refurbishment	Operational energy use	Operational water use	De-construction	Transport	Waste processing	Disposal
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4
Hazardous waste disposed	kg	2,13E-01	3,46E-03	1,17E-01	MND	3,09E-02	MND	MND	MND	MND	MND	0,00E+00	1,31E-04	0,00E+00	6,58E-04
Non hazardous waste disposed	kg	1,23E+00	3,06E-01	6,27E-01	MND	1,49E-01	MND	MND	MND	MND	MND	0,00E+00	1,16E-02	0,00E+00	3,21E+00
Radioactive waste disposed	kg	3,61E-04	4,02E-05	7,46E-05	MND	2,52E-05	MND	MND	MND	MND	MND	0,00E+00	1,52E-06	0,00E+00	5,04E-06
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	2,62E-02	0,00E+00	1,03E-01	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy (electricity)	MJ	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy (steam)	MJ	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00

MND: Module not declared

Programme-related information and verification

The EPD owner has the sole ownership liability and responsibility for the flooring EPD. EPDs within the same product category but from different programmes may not be comparable. EPDs of floor products may not be comparable if they do not comply with EN 15804 and 16810.

Programme:	The International EPD® System EPD International AB Box 210 60 SE-100 31 Stockholm Sweden www.environdec.com info@environdec.com
EPD registration number:	S-P-01505
ECO EPD Ref. number	00001046
Published:	2019-11-22
Valid until:	2024-11-22
Product Category Rules:	PCR 2012:01 version 2.3 and Sub-PCR-F Resilient. Textile and laminate floor coverings (EN 16810)
Product group classification:	UN CPC APE/NAF - 2223Z
Reference year for data:	2018
Geographical scope:	Europe

CEN standard EN 15804 and EN 16810 serve as the Core Product Category Rules (PCR)
Product category rules (PCR): EN 15804 and EN 16810
Independent third-party verification of the declaration and data. according to ISO 14025:2006: ☐ EPD process certification ■ EPD verification
Third party verifier: Damien PRUNEL. BUREAU VERITAS LCIE
Procedure for follow-up of data during EPD validity involves third party verifier: ☒ Yes ☐ No

References

General Programme Instructions of the International EPD® System. Version 3.0.

PCR 2012:01 version 2.3

Contact information:

	Programme operator: EPD International AB info@environdec.com		
	Author of the Life Cycle Assessment TARKETT Tarkett La Défense 1 Terrasse Bellini 92 400 Paris	Tel Mail Web	+33 (0)1 41 20 40 74 axel.roy@tarkett.com www.tarkett.com
	Owner of the Declaration TARKETT Tarkett La Défense 1 Terrasse Bellini 92 400 Paris	Tel Mail Web	+33 (0)1 41 20 40 74 axel.roy@tarkett.com www.tarkett.com
	Reviewer BUREAU VERITAS LCIE 170 rue de Chatagnon ZI Centr'alp 38 430 Moirans - FRANCE	Tel Mail Web	+33 (0)4 76 07 36 42 damien.prunel@fr.bureauveritas.com www.codde.fr

EPD®

www.environdec.com