

# Environmental Product Declaration



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

## **Carpet flooring Desso Ecobase backing, 100% recycled yarn - TARKETT**

Programme:	The International EPD® System <a href="http://www.environdec.com">www.environdec.com</a>
Programme operator:	EPD International AB
EPD registration number:	S-P-01356
ECO EPD Ref. number:	00000896
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Validity date:	2024-04-01
Geographical scope:	Europe



## General information

### Information about the organization

Owner of the EPD: Tarkett France. Axel ROY, +33 (0)141 204 074, [axel.roy@tarkett.com](mailto:axel.roy@tarkett.com), Tarkett La Défense, 1 Terrasse Bellini 92400 Paris

Description of the organisation: ISO 9001, ISO 14001, WCM manufacturing site

Name and location of production sites: Waalwijk, Netherlands and Dendermonde, Belgium

### 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: 34 products regrouped in five categories

Product identification: Carpet flooring with a Desso Ecobase® backing and a 100% recycled yarn (ISO 1307)

Product description:

Carpet products offer a large choice of designs and colours in acoustic profiles. It is developed to be combined with a full and diversified range of accessories to meet and-users sensorial, functional and environmental needs and concerns in all segments.

The following figure shows an example of Carpet flooring:



Carpet flooring

UN CPC code: APE/NAF - 2223Z

Geographical scope: Europe

Range of application

The products are classified in accordance with EN ISO 10874, (previously EN 685) and in reference to the FCSS (Floor Covering Standard Symbols) to be used in all professional areas which require class 33 or less

## LCA information

### **Functional unit / declared unit:**

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1m<sup>2</sup> of floor covering with a reference service life (RSL) of 1 year for specified characteristics application and use areas according to ISO 1307 and EN ISO 10874.

### **Reference service life:**

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1 year

### **Time representativeness:**

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2018

### **Database(s) and LCA software used:**

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SimaPro 8.5

### **Description of system boundaries:**

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Cradle to grave

### **System boundaries**

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The system boundary is based on the EN 15804 description.

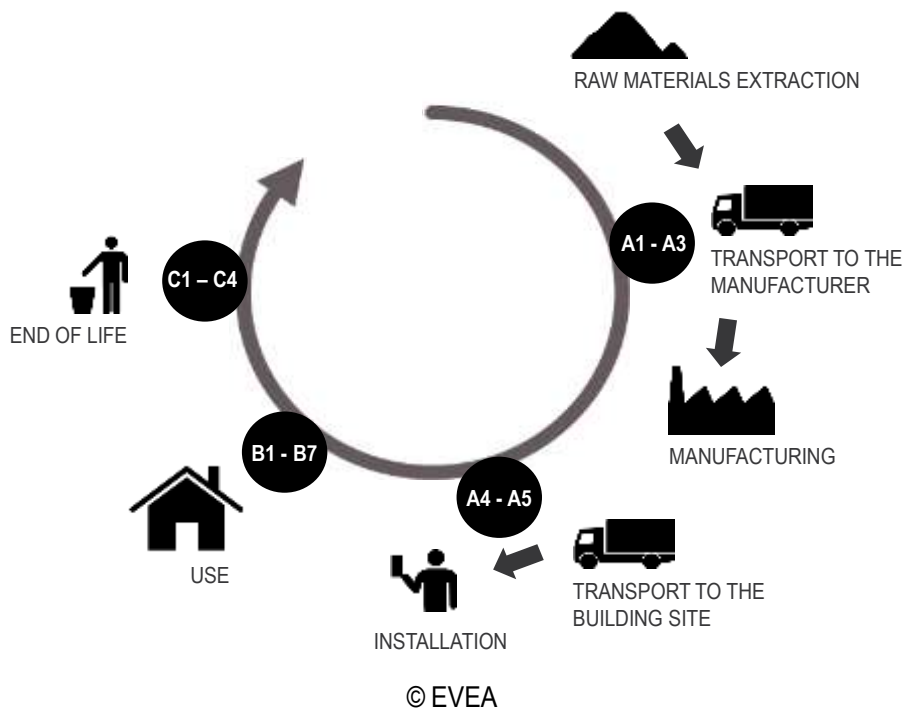


**Production stage : A1 – A3:** includes the provision of all raw materials, transport to the production site and energy and water consumption during the manufacturing of the product, packaging of final product, the different air emissions, as well as processing of waste generated by the factory.

**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				Resource Recovery Stage
	Raw material supply (extraction, processing, recycled material)	Transport to manufacturing	Manufacturing	Transport to building site	Installation into building	Use / application	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction / Demolition	Transport EoL	Waste processing for reuse, recovery, recycling	Disposal	Reuse-Recycle Potential
Modules	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Accounted for :	X	X	X	X	X	MND	X	MND	MND	MND	MND	MND	X	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 product floor covering Carpet 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

Characteristics	Product Thickness [mm]	Product Weight [kg/m <sup>2</sup> ]	Impact sound reduction [dB]	Dimension stability [%]
500 g/m <sup>2</sup> ≤ Quantity of yarn ≤ 599 g/m <sup>2</sup>	5.82E+00	3.97E+00	24	≤ 0.2
600 g/m <sup>2</sup> ≤ Quantity of yarn ≤ 699 g/m <sup>2</sup>	6.19E+00	4.10E+00	22	
700 g/m <sup>2</sup> ≤ Quantity of yarn ≤ 799 g/m <sup>2</sup>	6.47E+00	4.19E+00	26	
800 g/m <sup>2</sup> ≤ Quantity of yarn ≤ 899 g/m <sup>2</sup>	7.01E+00	4.30E+00	27	
900 g/m <sup>2</sup> ≤ Quantity of yarn ≤ 999 g/m <sup>2</sup>	7.00E+00	4.47E+00	25	

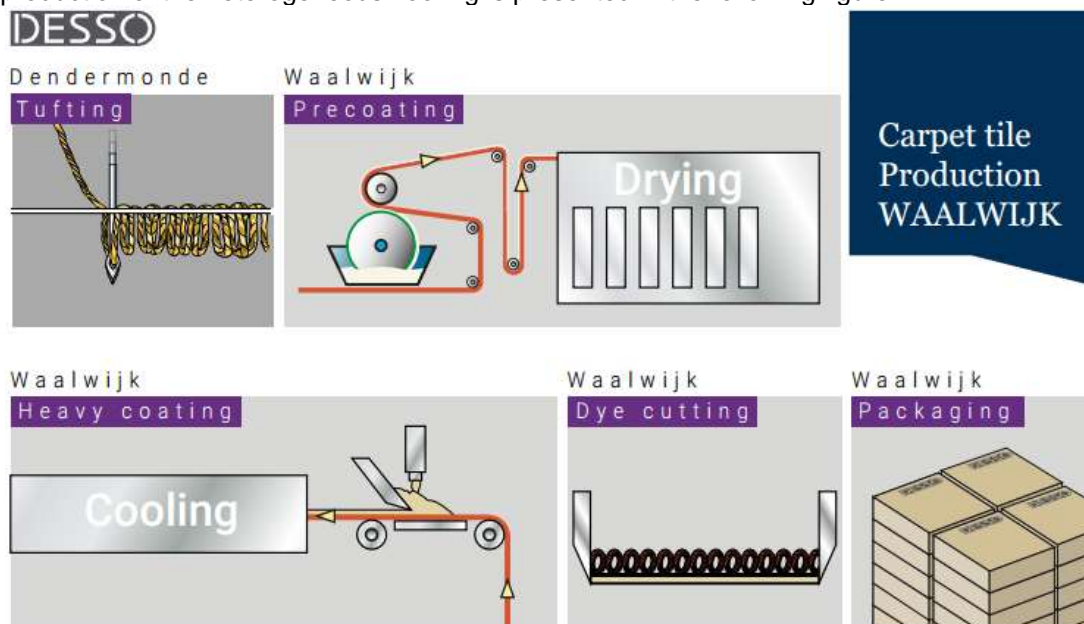
Chemical composition for all representative products are presented in the following table:

Chemical substances for each representative product	500 g/m <sup>2</sup> ≤ Quantity of yarn ≤ 599 g/m <sup>2</sup>	600 g/m <sup>2</sup> ≤ Quantity of yarn ≤ 699 g/m <sup>2</sup>	700 g/m <sup>2</sup> ≤ Quantity of yarn ≤ 799 g/m <sup>2</sup>	800 g/m <sup>2</sup> ≤ Quantity of yarn ≤ 899 g/m <sup>2</sup>	900 g/m <sup>2</sup> ≤ Quantity of yarn ≤ 999 g/m <sup>2</sup>	Substance concerned with REACH
Tuftcloth	2%	2%	2%	2%	2%	/
Yarn (100% recycled)	15%	17%	19%	21%	22%	/
SB	4%	4%	4%	4%	4%	/
SB hard	2%	2%	2%	2%	0%	/
Phosphate salt	0.2%	0.2%	0.2%	0.2%	0.2%	/
Aluminium trihydrate	14%	15%	15%	14%	15%	/
Primary Chalk	1%	1%	1%	1%	0%	/
Antistatic	0.1%	0.1%	0.1%	0.1%	0.1%	/
Ecobase®	62%	59%	57%	56%	57%	/

## Product manufacturing

### Production process

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



### Production waste

Waste type	500 g/m <sup>2</sup> ≤ Quantity of	600 g/m <sup>2</sup> ≤ Quantity of	700 g/m <sup>2</sup> ≤ Quantity of	800 g/m <sup>2</sup> ≤ Quantity of	900 g/m <sup>2</sup> ≤ Quantity of



	yarn ≤ 599 g/m <sup>2</sup>	yarn ≤ 699 g/m <sup>2</sup>	yarn ≤ 799 g/m <sup>2</sup>	yarn ≤ 899 g/m <sup>2</sup>	yarn ≤ 999 g/m <sup>2</sup>
Non-hazardous waste to incineration [kg/m <sup>2</sup> ]	1.79E-01	1.85E-01	1.89E-01	1.93E-01	2.10E-01

### Health, safety and environmental aspects during production

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

### Packaging

Type	500 g/m <sup>2</sup> ≤ Quantity of yarn ≤ 599 g/m <sup>2</sup>	600 g/m <sup>2</sup> ≤ Quantity of yarn ≤ 699 g/m <sup>2</sup>	700 g/m <sup>2</sup> ≤ Quantity of yarn ≤ 799 g/m <sup>2</sup>	800 g/m <sup>2</sup> ≤ Quantity of yarn ≤ 899 g/m <sup>2</sup>	900 g/m <sup>2</sup> ≤ Quantity of yarn ≤ 999 g/m <sup>2</sup>
Product Packaging Cardboard [kg/m <sup>2</sup> ]	1.09E-01	1.09E-01	1.09E-01	1.09E-01	1.09E-01
Product Packaging wooden palett [kg/m <sup>2</sup> ]	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01

### Delivery and installation

#### Delivery

The average distribution distance between the factories and the installation site is presented in the following table. The distribution is made by truck.

	500 g/m <sup>2</sup> ≤ Quantity of yarn ≤ 599 g/m <sup>2</sup>	600 g/m <sup>2</sup> ≤ Quantity of yarn ≤ 699 g/m <sup>2</sup>	700 g/m <sup>2</sup> ≤ Quantity of yarn ≤ 799 g/m <sup>2</sup>	800 g/m <sup>2</sup> ≤ Quantity of yarn ≤ 899 g/m <sup>2</sup>	900 g/m <sup>2</sup> ≤ Quantity of yarn ≤ 999 g/m <sup>2</sup>
Average distance of delivery [km]	7.00E+02	7.00E+02	7.00E+02	7.00E+02	7.00E+02

#### Installation

Carpet flooring do not use any electric tools for their installation. If a cut is necessary, it could be done with a manual tool.

#### Waste

During the installation approximately 3% of the flooring is lost as off-cuts. All flooring losses are sent to incineration.

#### Packaging

50 % of the packaging materials goes to incineration and 50 % goes to landfill except for wooden palett which are recycled.



## 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 carpet flooring 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 10 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	3.14E-01	kWh/year/m <sup>2</sup>
Water consumption	4.00E+00	L/year/m <sup>2</sup>
Detergent consumption	9.00E-02	L/year/m <sup>2</sup>

### 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

### Transport

Tarkett has implemented a recycling circuit to recover all carpet flooring removed from buildings where they were installed. The final process to really recycle these carpets is in the same factory than the production: Waalwijk. So, the distance of transport between installation sites and recycling site is the same than for the module A4.

### Waste processing

Basically, the process separates yarn and Ecobase backing + residual parts in four steps and makes these material streams available for the next carpet cycle. The rest streams (mainly tuftcloth and SB-compounds) cannot be reused yet at the desired quality level. At this moment in time those streams will be considered as fuels and raw material (chalk) for the cement industry



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## Resource recovery

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Module D has been considered for this study in order to evaluate the possible environmental benefits obtainable through the re-use of secondary materials in other production cycles. Particularly, the module clearly describes the benefits and the environmental charges deriving from reusable products exiting from the system, such as secondary materials or secondary fuels. Three flows have been considered :

- Yarn
- Ecobase® backing
- Others compounds

The first two are reusable directly in the product. The third replaces a fuel mix in cement industry.

# Environmental performance

## Potential environmental impact

Results for products with a quantity of yarn between 500 and 599 g/m<sup>2</sup>

PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage				Resource recovery stage
		Total Production	Transport	installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction	Transport	Waste processing	Disposal	Reuse – Recycle Potential
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming	kg CO <sub>2</sub> eq	5.03E+00	1.13E-01	2.23E-01	MND	3.85E-01	MND	MND	MND	MND	MND	0.00E+00	1.14E-01	8.33E-03	0.00E+00	-1.69E+00
Ozone Depletion	kg CFC-11 eq	2.72E-07	2.11E-08	1.05E-08	MND	2.96E-08	MND	MND	MND	MND	MND	0.00E+00	2.12E-08	6.99E-10	0.00E+00	-1.26E-07
Acidification of soil and water	kg SO <sub>2</sub> eq.	5.93E-02	3.58E-04	1.85E-03	MND	1.63E-03	MND	MND	MND	MND	MND	0.00E+00	3.63E-04	5.03E-05	0.00E+00	-6.44E-03
Eutrophication	kg PO <sub>4</sub> -eq	2.75E-03	5.88E-05	1.42E-04	MND	8.39E-04	MND	MND	MND	MND	MND	0.00E+00	6.02E-05	1.35E-05	0.00E+00	-1.23E-03
Photochemical ozone creation	kg ethylene	4.63E-03	5.84E-05	1.65E-04	MND	2.08E-04	MND	MND	MND	MND	MND	0.00E+00	5.90E-05	3.27E-06	0.00E+00	-2.15E-03
Depletion of abiotic resources - elements	kg antimony	1.07E-05	3.54E-07	3.56E-07	MND	8.83E-07	MND	MND	MND	MND	MND	0.00E+00	3.54E-07	7.24E-08	0.00E+00	-3.87E-06
Depletion of abiotic resources - fossil	MJ. net CV	9.87E+01	1.71E+00	3.15E+00	MND	2.68E+00	MND	MND	MND	MND	MND	0.00E+00	1.72E+00	1.19E-01	0.00E+00	-5.17E+01



Results for products with a quantity of yarn between 600 and 699 g/m<sup>2</sup>

PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage				Resource recovery stage
		Total Production	Transport	installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction	Transport	Waste processing	Disposal	Reuse – Recycle Potential
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming	kg CO <sub>2</sub> eq	5.40E+00	1.13E-01	2.37E-01	MND	3.85E-01	MND	MND	MND	MND	MND	0.00E+00	1.14E-01	8.33E-03	0.00E+00	-1.72E+00
Ozone Depletion	kg CFC-11 eq	2.85E-07	2.11E-08	1.09E-08	MND	2.96E-08	MND	MND	MND	MND	MND	0.00E+00	2.12E-08	6.99E-10	0.00E+00	-1.30E-07
Acidification of soil and water	kg SO <sub>2</sub> eq.	6.74E-02	3.58E-04	2.10E-03	MND	1.63E-03	MND	MND	MND	MND	MND	0.00E+00	3.63E-04	5.03E-05	0.00E+00	-6.56E-03
Eutrophication	kg PO <sub>4</sub> -eq	3.00E-03	5.88E-05	1.50E-04	MND	8.39E-04	MND	MND	MND	MND	MND	0.00E+00	6.02E-05	1.35E-05	0.00E+00	-1.25E-03
Photochemical ozone creation	kg ethylene	4.85E-03	5.84E-05	1.72E-04	MND	2.08E-04	MND	MND	MND	MND	MND	0.00E+00	5.90E-05	3.27E-06	0.00E+00	-2.16E-03
Depletion of abiotic resources - elements	kg antimony	1.11E-05	3.54E-07	3.67E-07	MND	8.83E-07	MND	MND	MND	MND	MND	0.00E+00	3.54E-07	7.24E-08	0.00E+00	-3.94E-06
Depletion of abiotic resources - fossil	MJ. net CV	1.04E+02	1.71E+00	3.31E+00	MND	2.68E+00	MND	MND	MND	MND	MND	0.00E+00	1.72E+00	1.19E-01	0.00E+00	-5.22E+01



Results for products with a quantity of yarn between 700 and 799 g/m<sup>2</sup>

PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage				Resource recovery stage
		Total Production	Transport	installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction	Transport	Waste processing	Disposal	Reuse – Recycle Potential
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming	kg CO <sub>2</sub> eq	5.68E+00	1.13E-01	2.46E-01	MND	3.85E-01	MND	MND	MND	MND	MND	0.00E+00	1.14E-01	8.33E-03	0.00E+00	-1.75E+00
Ozone Depletion	kg CFC-11 eq	2.89E-07	2.11E-08	1.11E-08	MND	2.96E-08	MND	MND	MND	MND	MND	0.00E+00	2.12E-08	6.99E-10	0.00E+00	-1.34E-07
Acidification of soil and water	kg SO <sub>2</sub> eq.	7.50E-02	3.58E-04	2.33E-03	MND	1.63E-03	MND	MND	MND	MND	MND	0.00E+00	3.63E-04	5.03E-05	0.00E+00	-6.68E-03
Eutrophication	kg PO <sub>4</sub> -eq	3.20E-03	5.88E-05	1.56E-04	MND	8.39E-04	MND	MND	MND	MND	MND	0.00E+00	6.02E-05	1.35E-05	0.00E+00	-1.26E-03
Photochemical ozone creation	kg ethylene	4.92E-03	5.84E-05	1.74E-04	MND	2.08E-04	MND	MND	MND	MND	MND	0.00E+00	5.90E-05	3.27E-06	0.00E+00	-2.18E-03
Depletion of abiotic resources - elements	kg antimony	1.13E-05	3.54E-07	3.72E-07	MND	8.83E-07	MND	MND	MND	MND	MND	0.00E+00	3.54E-07	7.24E-08	0.00E+00	-4.00E-06
Depletion of abiotic resources - fossil	MJ. net CV	1.07E+02	1.71E+00	3.41E+00	MND	2.68E+00	MND	MND	MND	MND	MND	0.00E+00	1.72E+00	1.19E-01	0.00E+00	-5.24E+01



Results for products with a quantity of yarn between 800 and 899 g/m<sup>2</sup>

PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage				Resource recovery stage
		Total Production	Transport	installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction	Transport	Waste processing	Disposal	Reuse – Recycle Potential
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming	kg CO <sub>2</sub> eq	5.99E+00	1.13E-01	2.58E-01	MND	3.85E-01	MND	MND	MND	MND	MND	0.00E+00	1.14E-01	8.33E-03	0.00E+00	-1.78E+00
Ozone Depletion	kg CFC-11 eq	2.96E-07	2.11E-08	1.13E-08	MND	2.96E-08	MND	MND	MND	MND	MND	0.00E+00	2.12E-08	6.99E-10	0.00E+00	-1.39E-07
Acidification of soil and water	kg SO <sub>2</sub> eq.	8.27E-02	3.58E-04	2.56E-02	MND	1.63E-03	MND	MND	MND	MND	MND	0.00E+00	3.63E-04	5.03E-05	0.00E+00	-6.80E-03
Eutrophication	kg PO <sub>4</sub> -eq	3.42E-03	5.88E-05	1.63E-04	MND	8.39E-04	MND	MND	MND	MND	MND	0.00E+00	6.02E-05	1.35E-05	0.00E+00	-1.28E-03
Photochemical ozone creation	kg ethylene	5.01E-03	5.84E-05	1.77E-04	MND	2.08E-04	MND	MND	MND	MND	MND	0.00E+00	5.90E-05	3.27E-06	0.00E+00	-2.20E-03
Depletion of abiotic resources - elements	kg antimony	1.15E-05	3.54E-07	3.81E-07	MND	8.83E-07	MND	MND	MND	MND	MND	0.00E+00	3.54E-07	7.24E-08	0.00E+00	-4.07E-06
Depletion of abiotic resources - fossil	MJ. net CV	1.11E+02	1.71E+00	3.53E+00	MND	2.68E+00	MND	MND	MND	MND	MND	0.00E+00	1.72E+00	1.19E-01	0.00E+00	-5.30E+01



Results for products with a quantity of yarn between 900 and 999 g/m<sup>2</sup>

PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage				Resource recovery stage
		Total Production	Transport	installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction	Transport	Waste processing	Disposal	Reuse – Recycle Potential
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming	kg CO2 eq	6.44E+00	1.13E-01	2.74E-01	MND	3.85E-01	MND	MND	MND	MND	MND	0.00E+00	1.14E-01	8.33E-03	0.00E+00	-1.81E-00
Ozone Depletion	kg CFC-11 eq	3.13E-07	2.11E-08	1.18E-08	MND	2.96E-08	MND	MND	MND	MND	MND	0.00E+00	2.12E-08	6.99E-10	0.00E+00	-1.43E-07
Acidification of soil and water	kg SO2 eq.	9.12E-02	3.58E-04	2.81E-03	MND	1.63E-03	MND	MND	MND	MND	MND	0.00E+00	3.63E-04	5.03E-05	0.00E+00	-6.94E-03
Eutrophication	kg PO4-- eq	3.71E-03	5.88E-05	1.72E-04	MND	8.39E-04	MND	MND	MND	MND	MND	0.00E+00	6.02E-05	1.35E-05	0.00E+00	-1.29E-03
Photochemical ozone creation	kg ethylene	5.45E-03	5.84E-05	1.90E-04	MND	2.08E-04	MND	MND	MND	MND	MND	0.00E+00	5.90E-05	3.27E-06	0.00E+00	-2.22E-03
Depletion of abiotic resources - elements	kg antimony	1.22E-05	3.54E-07	4.00E-07	MND	8.83E-07	MND	MND	MND	MND	MND	0.00E+00	3.54E-07	7.24E-08	0.00E+00	-4.13E-06
Depletion of abiotic resources - fossil	MJ. net CV	1.19E+02	1.71E+00	3.75E+00	MND	2.68E+00	MND	MND	MND	MND	MND	0.00E+00	1.72E+00	1.19E-01	0.00E+00	-5.32E+01





### Use of resources

Results for products with a quantity of yarn between 500 and 599 g/m <sup>2</sup>																
PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage				Resource recovery stage
		Total Production	Transport	Installation	Use	Maintenance	Repair	Replacement	refurbishment	Operational energy use	Operational water use	De-constructi on	Transport	Waste processing	Disposal	Reuse Recycle Potential
		A1-A3	A4	A5	B1	B2.	B3	B4	B5	B6	B7	C1	C2.	C3	C4	D
Renewable primary energy excl. RM	MJ. net CV	2.22E+01	2.55E-02	6.72E-01	MND	9.03E-01	MND	MND	MND	MND	MND	0.00E+00	2.55E-02	5.32E-01	0.00E+00	-1.30E+00
Renewable primary energy used as RM	MJ. net CV	3.40E+00	0.00E+00	-1.48E+00	MND	1.41E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total renewable primary energy	MJ. net CV	2.56E+01	2.55E-02	-8.06E-01	MND	2.31E+00	MND	MND	MND	MND	MND	0.00E+00	2.55E-02	5.32E-01	0.00E+00	-1.32E+00
Non renewable primary energy excl. RM	MJ. net CV	6.75E+01	1.75E+00	2.24E+00	MND	4.31E+00	MND	MND	MND	MND	MND	0.00E+00	1.76E+00	1.23E-01	0.00E+00	-3.11E+01
Non renewable primary energy used as RM	MJ. net CV	5.83E+01	0.00E+00	1.75E+00	MND	0.00E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-2.39E+01
Total non renewable primary energy	MJ. net CV	1.26E+02	1.75E+00	3.98E+00	MND	4.31E+00	MND	MND	MND	MND	MND	0.00E+00	1.76E+00	1.23E-01	0.00E+00	-5.49E+01
Use of secondary material	kg	3.07E+00	0.00E+00	9.22E-02	MND	0.00E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.77E+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	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	0.00E+00
Net use of fresh water	m3	1.29E-01	3.29E-04	4.11E-03	MND	1.44E-02	MND	MND	MND	MND	MND	0.00E+00	3.30E-04	1.33E-04	0.00E+00	-1.50E-02



Results for products with a quantity of yarn between 600 and 699 g/m<sup>2</sup>

PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage				Resource recovery stage
		Total Production	Transport	Installation	Use	Maintenance	Repair	Replacement	refurbishment	Operational energy use	Operational water use	De-constructi on	Transport	Waste processing	Disposal	Reuse Recycle Potential
		A1-A3	A4	A5	B1	B2.	B3	B4	B5	B6	B7	C1	C2.	C3	C4	D
Renewable primary energy excl. RM	MJ. net CV	2.53E+01	2.55E-02	7.64E-01	MND	9.03E-01	MND	MND	MND	MND	MND	0.00E+00	2.55E-02	5.32E-01	0.00E+00	-1.32E+00
Renewable primary energy used as RM	MJ. net CV	3.40E+00	0.00E+00	-1.48E+00	MND	1.41E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total renewable primary energy	MJ. net CV	2.87E+01	2.55E-02	-7.13E-01	MND	2.31E+00	MND	MND	MND	MND	MND	0.00E+00	2.55E-02	5.32E-01	0.00E+00	-1.32E+00
Non renewable primary energy excl. RM	MJ. net CV	7.24E+01	1.75E+00	2.38E+00	MND	4.31E+00	MND	MND	MND	MND	MND	0.00E+00	1.76E+00	1.23E-01	0.00E+00	-3.16E+01
Non renewable primary energy used as RM	MJ. net CV	6.25E+01	0.00E+00	1.88E+00	MND	0.00E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-2.39E+01
Total non renewable primary energy	MJ. net CV	1.35E+02	1.75E+00	4.26E+00	MND	4.31E+00	MND	MND	MND	MND	MND	0.00E+00	1.76E+00	1.23E-01	0.00E+00	-5.55E+01
Use of secondary material	kg	3.27E+00	0.00E+00	9.80E-02	MND	0.00E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.77E+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	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	0.00E+00
Net use of fresh water	m3	1.39E-01	3.29E-04	4.42E-03	MND	1.44E-02	MND	MND	MND	MND	MND	0.00E+00	3.30E-04	1.33E-04	0.00E+00	-1.52E-02



Results for products with a quantity of yarn between 700 and 799 g/m<sup>2</sup>

PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage				Resource recovery stage
		Total Production	Transport	Installation	Use	Maintenance	Repair	Replacement	refurbishment	Operational energy use	Operational water use	De-constructi on	Transport	Waste processing	Disposal	Reuse Recycle Potential
		A1-A3	A4	A5	B1	B2.	B3	B4	B5	B6	B7	C1	C2.	C3	C4	D
Renewable primary energy excl. RM	MJ. net CV	2.83E+01	2.55E-02	8.54E-01	MND	9.03E-01	MND	MND	MND	MND	MND	0.00E+00	2.55E-02	5.32E-01	0.00E+00	-1.34E+00
Renewable primary energy used as RM	MJ. net CV	3.40E+00	0.00E+00	-1.48E+00	MND	1.41E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total renewable primary energy	MJ. net CV	3.17E+01	2.55E-02	-6.24E-01	MND	2.31E+00	MND	MND	MND	MND	MND	0.00E+00	2.55E-02	5.32E-01	0.00E+00	-1.34E+00
Non renewable primary energy excl. RM	MJ. net CV	7.58E+01	1.75E+00	2.49E+00	MND	4.31E+00	MND	MND	MND	MND	MND	0.00E+00	1.76E+00	1.23E-01	0.00E+00	-3.19E+01
Non renewable primary energy used as RM	MJ. net CV	6.59E+01	0.00E+00	1.98E+00	MND	0.00E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-2.39E+01
Total non renewable primary energy	MJ. net CV	1.42E+02	1.75E+00	4.46E+00	MND	4.31E+00	MND	MND	MND	MND	MND	0.00E+00	1.76E+00	1.23E-01	0.00E+00	-5.58E+01
Use of secondary material	kg	3.46E+00	0.00E+00	1.04E-01	MND	0.00E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.77E+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	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	0.00E+00
Net use of fresh water	m3	1.48E-01	3.29E-04	4.70E-03	MND	1.44E-02	MND	MND	MND	MND	MND	0.00E+00	3.30E-04	1.33E-04	0.00E+00	-1.53E-02



Results for products with a quantity of yarn between 800 and 899 g/m<sup>2</sup>

PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage				Resource recovery stage
		Total Production	Transport	Installation	Use	Maintenance	Repair	Replacement	refurbishment	Operational energy use	Operational water use	De-constructi on	Transport	Waste processing	Disposal	Reuse Recycle Potential
		A1-A3	A4	A5	B1	B2.	B3	B4	B5	B6	B7	C1	C2.	C3	C4	D
Renewable primary energy excl. RM	MJ. net CV	3.13E+01	2.55E-02	9.45E-01	MND	9.03E-01	MND	MND	MND	MND	MND	0.00E+00	2.55E-02	5.32E-01	0.00E+00	-1.36E+00
Renewable primary energy used as RM	MJ. net CV	3.40E+00	0.00E+00	-1.48E+00	MND	1.41E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total renewable primary energy	MJ. net CV	3.47E+01	2.55E-02	-5.33E-01	MND	2.31E+00	MND	MND	MND	MND	MND	0.00E+00	2.55E-02	5.32E-01	0.00E+00	-1.36E+00
Non renewable primary energy excl. RM	MJ. net CV	7.99E+01	1.75E+00	2.61E+00	MND	4.31E+00	MND	MND	MND	MND	MND	0.00E+00	1.76E+00	1.23E-01	0.00E+00	-3.25E+01
Non renewable primary energy used as RM	MJ. net CV	6.96E+01	0.00E+00	2.09E+00	MND	0.00E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-2.39E+01
Total non renewable primary energy	MJ. net CV	1.49E+02	1.75E+00	4.70E+00	MND	4.31E+00	MND	MND	MND	MND	MND	0.00E+00	1.76E+00	1.23E-01	0.00E+00	-5.64E+01
Use of secondary material	kg	3.65E+00	0.00E+00	1.10E-01	MND	0.00E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.77E+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	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	0.00E+00
Net use of fresh water	m3	1.58E-01	3.29E-04	4.99E-03	MND	1.44E-02	MND	MND	MND	MND	MND	0.00E+00	3.30E-04	1.33E-04	0.00E+00	-1.55E-02



Results for products with a quantity of yarn between 900 and 999 g/m<sup>2</sup>

PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage				Resource recovery stage
		Total Production	Transport	Installation	Use	Maintenance	Repair	Replacement	refurbishment	Operational energy use	Operational water use	De-constructi on	Transport	Waste processing	Disposal	Reuse Recycle Potential
		A1-A3	A4	A5	B1	B2.	B3	B4	B5	B6	B7	C1	C2.	C3	C4	D
Renewable primary energy excl. RM	MJ. net CV	3.44E+01	2.55E-02	1.04E+00	MND	9.03E-01	MND	MND	MND	MND	MND	0.00E+00	2.55E-02	5.32E-01	0.00E+00	-1.38E+00
Renewable primary energy used as RM	MJ. net CV	3.40E+00	0.00E+00	-1.48E+00	MND	1.41E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total renewable primary energy	MJ. net CV	3.78E+01	2.55E-02	-4.39E-01	MND	2.31E+00	MND	MND	MND	MND	MND	0.00E+00	2.55E-02	5.32E-01	0.00E+00	-1.38E+00
Non renewable primary energy excl. RM	MJ. net CV	8.58E+01	1.75E+00	2.79E+00	MND	4.31E+00	MND	MND	MND	MND	MND	0.00E+00	1.76E+00	1.23E-01	0.00E+00	-3.28E+01
Non renewable primary energy used as RM	MJ. net CV	7.47E+01	0.00E+00	2.24E+00	MND	0.00E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-2.39E+01
Total non renewable primary energy	MJ. net CV	1.60E+02	1.75E+00	5.03E+00	MND	4.31E+00	MND	MND	MND	MND	MND	0.00E+00	1.76E+00	1.23E-01	0.00E+00	-5.67E+01
Use of secondary material	kg	3.84E+00	0.00E+00	1.15E-01	MND	0.00E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.77E+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	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	0.00E+00
Net use of fresh water	m3	1.69E-01	3.20E-04	5.33E-03	MND	1.44E-02	MND	MND	MND	MND	MND	0.00E+00	3.30E-04	1.33E-04	0.00E+00	-1.56E-02



### Waste production and output flows

#### Results for products with a quantity of yarn between 500 and 599 g/m<sup>2</sup>

PARAMETER	UNIT	Product stage	Construction stage			Use stage						End of life stage				Resource recovery stage
		Total Production	Transport	Installation	Use	Maintenance	Repair	Replacement	refurbishment	Operational energy use	Operational water use	De-constructi on	Transport	Waste processi ng	Disposal	Reuse Recycle Potential
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste disposed	kg	4.21E-01	1.03E-03	4.57E-02	MND	1.82E-02	MND	MND	MND	MND	MND	0.00E+00	1.04E-03	4.78E-04	0.00E+00	-2.50E-02
Non hazardous waste disposed	kg	3.72E+00	9.14E-02	1.75E-01	MND	1.08E-01	MND	MND	MND	MND	MND	0.00E+00	9.14E-02	5.21E-03	0.00E+00	-7.27E-01
Radioactive waste disposed	kg	2.75E-04	1.20E-05	9.65E-06	MND	2.38E-05	MND	MND	MND	MND	MND	0.00E+00	1.21E-05	1.20E-07	0.00E+00	-7.87E-05
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	0.00E+00
Materials for recycling	kg	8.05E-02	0.00E+00	1.02E-01	MND	0.00E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	3.15E+00	0.00E+00	0.00E+00
Materials for energy recovery	kg	7.33E-02	0.00E+00	4.63E-02	MND	0.00E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	2.43E-01	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	5.32E-01
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	5.32E-01

MND: Module not declared



Results for products with a quantity of yarn between 600 and 699 g/m<sup>2</sup>

PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage				Resource recovery stage
		Total Production	Transport	Installation	Use	Maintenance	Repair	Replacement	refurbishment	Operational energy use	Operational water use	De-constructi on	Transport	Waste processi ng	Disposal	Reuse Recycle Potential
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste disposed	kg	4.57E-01	1.03E-03	4.78 E-02	MND	1.82E-02	MND	MND	MND	MND	MND	0.00E+00	1.04E-03	4.78E-04	0.00E+00	-2.55E-02
Non hazardous waste disposed	kg	4.21E+00	9.14E-02	1.89E-01	MND	1.08E-01	MND	MND	MND	MND	MND	0.00E+00	9.14E-02	5.21E-03	0.00E+00	-7.51E-01
Radioactive waste disposed	kg	3.04E-04	1.20E-05	1.05E-05	MND	2.38E-05	MND	MND	MND	MND	MND	0.00E+00	1.21E-05	1.20E-07	0.00E+00	-8.14E-05
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	0.00E+00
Materials for recycling	kg	7.90E-02	0.00E+00	1.02E-01	MND	0.00E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	3.21E+00	0.00E+00	0.00E+00
Materials for energy recovery	kg	7.82E-02	0.00E+00	4.99E-02	MND	0.00E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	2.60E-01	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	5.68E-01
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	5.68E-01

MND: Module not declared





Results for products with a quantity of yarn between 700 and 799 g/m<sup>2</sup>

PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage				Resource recovery stage
		Total Production	Transport	Installation	Use	Maintenance	Repair	Replacement	refurbishment	Operational energy use	Operational water use	De-constructi on	Transport	Waste processi ng	Disposal	Reuse Recycle Potential
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste disposed	kg	4.65E-01	1.03E-03	4.87E-02	MND	1.82E-02	MND	MND	MND	MND	MND	0.00E+00	1.04E-03	4.78E-04	0.00E+00	-2.58E-02
Non hazardous waste disposed	kg	4.66E+00	9.14E-02	2.03E-01	MND	1.08E-01	MND	MND	MND	MND	MND	0.00E+00	9.14E-02	5.21E-03	0.00E+00	-7.70E-01
Radioactive waste disposed	kg	3.30E-04	1.20E-05	1.13E-05	MND	2.38E-05	MND	MND	MND	MND	MND	0.00E+00	1.21E-05	1.20E-07	0.00E+00	-8.41E-05
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	0.00E+00
Materials for recycling	kg	7.90E-02	0.00E+00	1.02E-01	MND	0.00E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	3.32E+00	0.00E+00	0.00E+00
Materials for energy recovery	kg	8.21E-02	0.00E+00	5.27E-02	MND	0.00E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	2.58E-01	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	5.98E-01
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	5.98E-01

MND: Module not declared



Results for products with a quantity of yarn between 800 and 899 g/m<sup>2</sup>

PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage				Resource recovery stage
		Total Production	Transport	Installation	Use	Maintenance	Repair	Replacement	refurbishment	Operational energy use	Operational water use	De-constructi on	Transport	Waste processi ng	Disposal	Reuse Recycle Potential
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste disposed	kg	4.73E-01	1.03E-03	4.99E-02	MND	1.82E-02	MND	MND	MND	MND	MND	0.00E+00	1.04E-03	4.78E-04	0.00E+00	-2.62E-02
Non hazardous waste disposed	kg	5.12E+00	9.14E-02	2.17E-01	MND	1.08E-01	MND	MND	MND	MND	MND	0.00E+00	9.14E-02	5.21E-03	0.00E+00	-7.94E-01
Radioactive waste disposed	kg	3.57E-04	1.20E-05	1.21E-05	MND	2.38E-05	MND	MND	MND	MND	MND	0.00E+00	1.21E-05	1.20E-07	0.00E+00	-8.68E-05
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	0.00E+00
Materials for recycling	kg	7.90E-02	0.00E+00	1.02E-01	MND	0.00E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	3.41E+00	0.00E+00	0.00E+00
Materials for energy recovery	kg	8.67E-02	0.00E+00	5.62E-02	MND	0.00E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	2.61E-01	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	6.31E-01
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	6.31E-01

MND: Module not declared



Results for products with a quantity of yarn between 900 and 999 g/m<sup>2</sup>

PARAMETER	UNIT	Product stage	Construction stage		Use stage							End of life stage				Resource recovery stage
		Total Production	Transport	Installation	Use	Maintenance	Repair	Replacement	refurbishment	Operational energy use	Operational water use	De-constructi on	Transport	Waste processi ng	Disposal	Reuse Recycle Potential
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste disposed	kg	5.21E-01	1.03E-03	5.26E-02	MND	1.82E-02	MND	MND	MND	MND	MND	0.00E+00	1.04E-03	4.78E-04	0.00E+00	-2.67E-02
Non hazardous waste disposed	kg	5.64E+00	9.14E-02	2.32E-01	MND	1.08E-01	MND	MND	MND	MND	MND	0.00E+00	9.14E-02	5.21E-03	0.00E+00	-8.15E-01
Radioactive waste disposed	kg	3.90E-04	1.20E-05	1.31E-05	MND	2.38E-05	MND	MND	MND	MND	MND	0.00E+00	1.21E-05	1.20E-07	0.00E+00	-8.97E-05
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	0.00E+00
Materials for recycling	kg	7.80E-02	0.00E+00	1.02E-01	MND	0.00E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	3.48E+00	0.00E+00	0.00E+00
Materials for energy recovery	kg	9.21E-02	0.00E+00	6.01E-02	MND	0.00E+00	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	2.93E-01	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	6.73E-01
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	6.73E-01



## 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.

<b>Programme:</b>	The International EPD® System  EPD International AB Box 210 60 SE-100 31 Stockholm Sweden  <a href="http://www.environdec.com">www.environdec.com</a> <a href="mailto:info@environdec.com">info@environdec.com</a>
<b>EPD registration number:</b>	S-P-01356
<b>ECO EPD Ref. number:</b>	00000896
<b>Published:</b>	2019-04-01
<b>Valid until:</b>	2024-04-01
<b>Product Category Rules:</b>	PCR 2012:01 version 2.3 and Sub-PCR-F Resilient. textile and laminate floor coverings (EN 16810)
<b>Product group classification:</b>	UN CPC APE/NAF - 2223Z
<b>Reference year for data:</b>	2018
<b>Geographical scope:</b>	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:  <input type="checkbox"/> EPD process certification <input checked="" type="checkbox"/> EPD verification
Third party verifier: Damien PRUNEL. BUREAU VERITAS LCIE
Procedure for follow-up of data during EPD validity involves third party verifier:  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

## References

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

PCR 2012:01 version 2.3

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