

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 www.environdec.com
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Geographical scope:	Europe



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 end-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:

1m² 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:

1 year

Time representativeness:

2018

Database(s) and LCA software used:

SimaPro 8.5

Description of system boundaries:

Cradle to grave

System boundaries

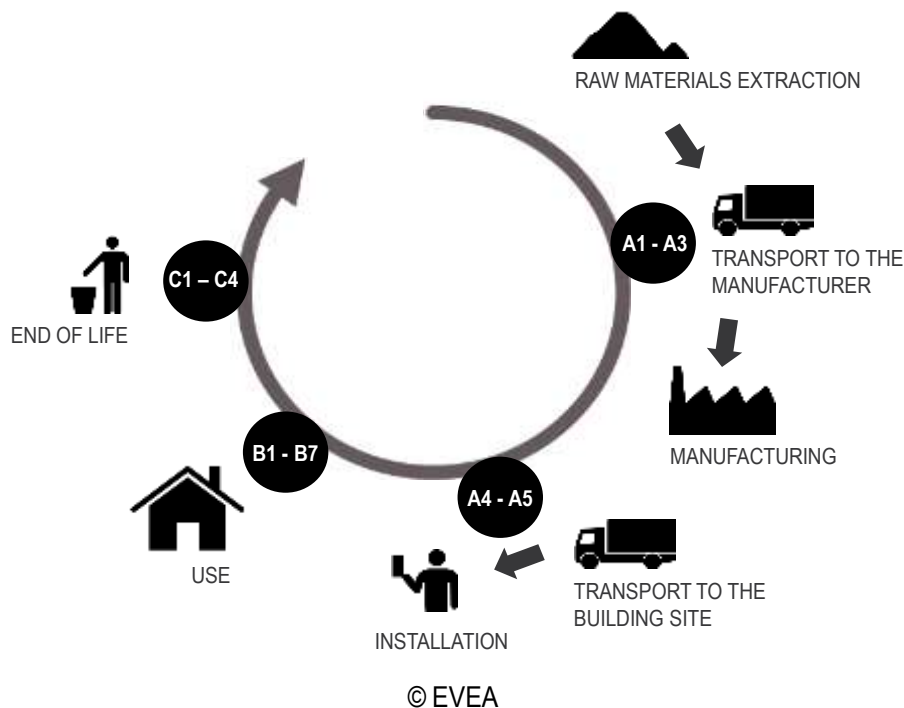
The system boundary is based on the EN 15804 description.

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				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/m²]	Impact sound reduction [dB]	Dimension stability [%]
500 g/m² ≤ Quantity of yarn ≤ 599 g/m²	5.82E+00	3.97E+00	24	≤ 0.2
600 g/m² ≤ Quantity of yarn ≤ 699 g/m²	6.19E+00	4.10E+00	22	
700 g/m² ≤ Quantity of yarn ≤ 799 g/m²	6.47E+00	4.19E+00	26	
800 g/m² ≤ Quantity of yarn ≤ 899 g/m²	7.01E+00	4.30E+00	27	
900 g/m² ≤ Quantity of yarn ≤ 999 g/m²	7.00E+00	4.47E+00	25	

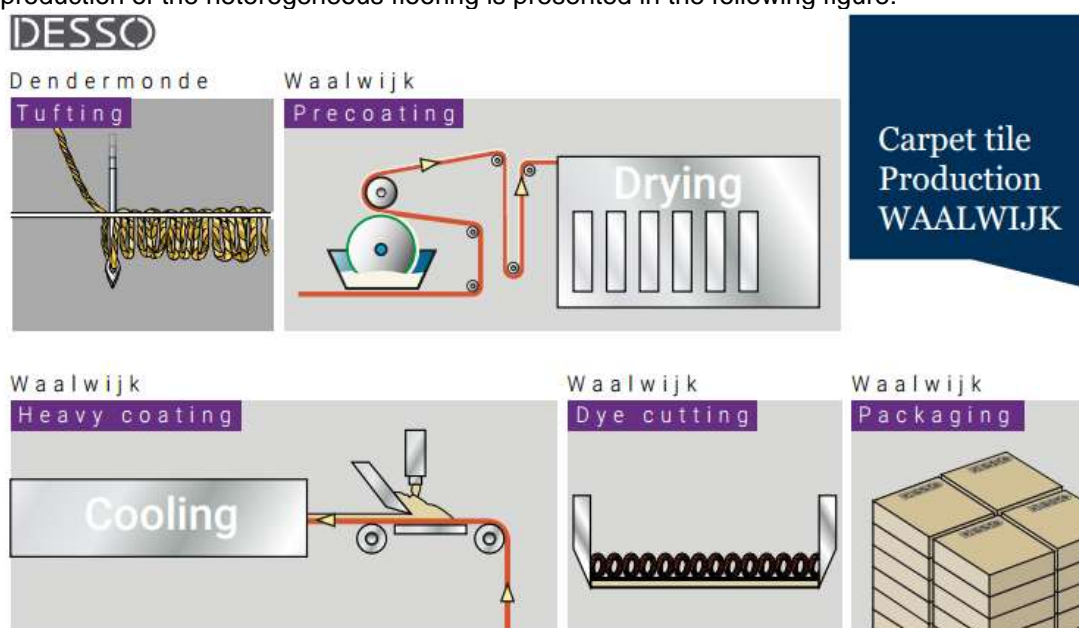
Chemical composition for all representative products are presented in the following table:

Chemical substances for each representative product	500 g/m ² ≤ Quantity of yarn ≤ 599 g/m ²	600 g/m ² ≤ Quantity of yarn ≤ 699 g/m ²	700 g/m ² ≤ Quantity of yarn ≤ 799 g/m ²	800 g/m ² ≤ Quantity of yarn ≤ 899 g/m ²	900 g/m ² ≤ Quantity of yarn ≤ 999 g/m ²	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 ² ≤ Quantity of	600 g/m ² ≤ Quantity of	700 g/m ² ≤ Quantity of	800 g/m ² ≤ Quantity of	900 g/m ² ≤ Quantity of
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