burmatex®

Environmental Product Declaration

EPD®

In accordance with ISO 14025 and EN 15804 for:

overlander

Modular Carpet Tile
Pile weight: 850g/m^2
Pile material: 85% Polypropylene 15% Nylon
Backing: Accummen™ minimum 75% recycled content
from

burmatex®

Programme:	The International EPD® System, www.environdec.com
Programme operator:	EPD International AB
EPD registration number:	S-P-01841
Publication date:	2020-02-03
Valid until:	2025-02-02

Programme information

Programme:	The International EPD® System EPD International AB Box 210 60 SE-100 31 Stockholm Sweden www.environdec.com info@environdec.com

Product category rules (PCR): PCR 2012:01. Construction Products and Construction Services. Version 2.3 PCR 2012:01-SUB-PCR-F. Resilient, Textile and Laminate Floor Coverings (EN 16810:2017). Date 2018-11-22 UN CPC Code: 2729
PCR review was conducted by: Martin Erlandsson, IVL Swedish Environmental Research Institute, martin.erlandsson@ivl.se
Independent third-party verification of the declaration and data, according to ISO 14025:2006: ☐ EPD process certification ☒ EPD verification
Third party verifier: Dr. Hudai Kara, Metsims Sustainability Consulting [www.metsims.com] Approved by: The International EPD® System
Procedure for follow-up of data during EPD validity involves third party verifier: ☒ Yes ☐ No

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

LCA information

Functional unit / declared unit: 1 m^2
Reference service life: one year
Time representativeness: Production year January to December 2018
Database(s) and LCA software used: Ecoinvent 3.0, SimaPro 9.0
Description of system boundaries: Cradle to gate with options (modules A1-A3, A4, A5, B2, C2, C4, EN15804)

Excluded lifecycle stages: B1, B3-B7 (in service), C1, C3 (demolition and waste processing), D (recycling and re-use).
More information:
https://www.burmatex.co.uk/contract-carpets/tivoli-carpet-tiles2
LCA practitioner: Callum Hill of Renuables Ltd, www.renuables.co.uk.

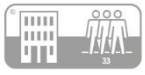
Company information

Owner of the EPD: Burmatex Ltd, Victoria Mills, The Green, Ossett, WF5 0AN
Description of the organisation: Burmatex was originally established as J&F Burrows in 1917 on the 11-acre site which is still occupied by the company today. The company's name changed in 1972, and Burmatex is now a company within AIREA plc (www.aireaplc.co.uk).

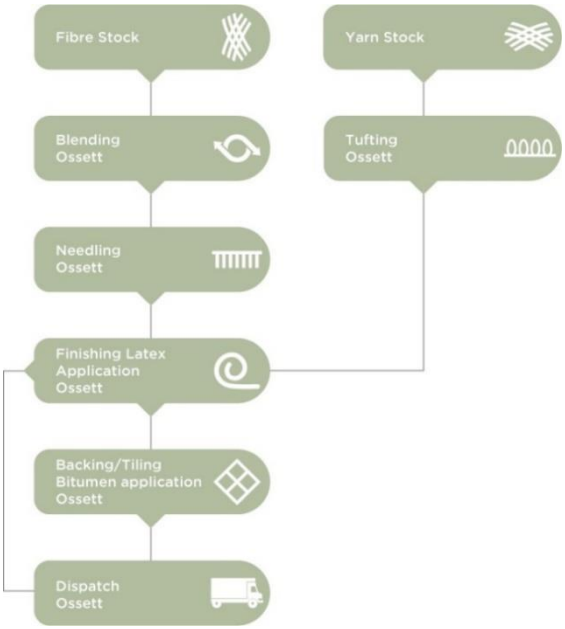
Product information

Product name: Overlander – Giant Tile
Product identification: Fibre Bonded
Type of Manufacture: Fibre Bonded Tile
Yarn type: 85% Polypropylene 15% Nylon
Product description:
Tile Dimensions: 100cm x 200cm
Pile Weight: 850g/m^2 +/-10%
Total Weight: 4200g/m^2 +/-10%
Secondary Backing: Accummen™, min. 75% recycled content

Wear Classification: BS EN 1307 Heavy Commercial Use Class 33



Total Thickness: 7.8 mm +/-10%
UN CPC code: 27230 - Carpets and other textile flooring, tufted.
Geographical scope: Global



- All **burmatex®** carpet/carpet tile/carpet plank ranges are made at its single UK manufacturing site in Ossett
- Wherever possible, raw materials including yarn/fibre are sourced locally i.e. within 20 miles
- Over 75% of **burmatex®** Accummen™ backing comes from recycled materials

Content declaration

The product contains no substances of very high concern which require registration. [https://echa.europa.eu/candidate-list-table]

Product contents: polypropylene fibre, nylon fibre, polyester fibre, glass fibre, latex, bitumen, limestone.

Packaging

Distribution packaging: Cardboard and polyethylene – included in the LCA.

Recycled material

Recycled limestone used in the backing is from pre-consumer waste.

Modules declared in the EPD

A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	MND	X	MND	MND	MND	MND	MND	MND	X	MND	X	MND

LCA: Calculation Rules

This assessment covers the life cycle stages for production, installation, maintenance and disposal. The reference service life used for the analysis is one year. Therefore, the declared results for module B2 have to be multiplied by the assumed service life (in years) of the floor covering in the building under consideration. Modules B1, B3, B4, B5, B6, B7 are not relevant during the service life of the carpet and are therefore not included. Module C1 (deconstruction) causes no additional impact (manual removal at end of life) and is therefore not declared. No additional waste processing is assumed and module C3 is not considered. Module D is not considered in this EPD, a variety of different scenarios are possible. Cut off criteria were based upon input flows being less than 1% of the total individually, subject to the sum of all flows being less than 5% of the total, subject to verification that the impacts associated with such flows were not of a magnitude to affect the reported data significantly (less than 5% in total). Not included in the analysis is any losses due to broken pallets (pallet network used), any possible recycling of packaging from deliveries is not included and it is all treated as waste. Recycled limestone is treated as quarried limestone. Allocation was on a mass basis.

The following assumptions have been made for the declared modules:

A1 – A3 Production

Energy Supply and production of the basic material, processing of secondary material, auxilary material, transport of the material to the manufacturing site, emmissions, waste water treatment, packaging material and waste processing up to the landfill disposal of residual waste.

A4 Transport

Average of 150 km, using 80% load factor, pallet network.

A5 Construction installation

Assume 3% wastage, with waste going to landfill. Cardboard packaging to recycling and polyethylene wrapping to landfill. Use of tackifier – solvent-free acrylic polymer emulsion usage of 90 ml per m^2, assuming 30% solids.

B2 Maintenance

Vacuum cleaning daily – assume 250 days per year = 0.377 kWh/m^2/y. Deep cleaning every six months, this would require 0.12 kg non-ionic surfactant cleaning agent and 0.005 m^3 of water per m^2 per year.

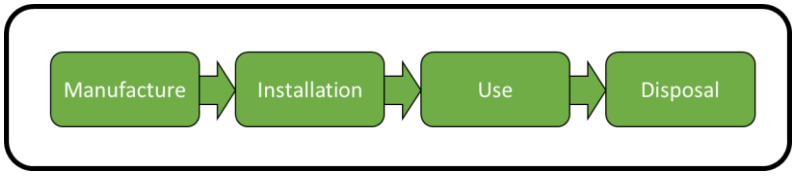
C2 Transport

Assume 50 km to waste disposal facility.

C4 Disposal

Landfill disposal was assumed. Other end of life scenarios are possible, such as incineration with energy recovery, or use as a fuel source for cement production.

This scenario is currently in use and is representative for one of the most likely scenario alternatives.



Environmental performance

Potential environmental impact

PARAMETER	UNIT	A1-A3	A4	A5	B2	C2	C4
Global warming potential (GWP)	kg CO_2 eq.	5.28E+00	5.33E-02	1.30E-01	5.45E-01	1.78E-02	3.45E-02
Depletion potential of the stratospheric ozone layer (ODP)	kg CFC 11 eq.	5.63E-07	1.07E-08	1.51E-08	2.34E-08	3.55E-09	1.00E-08
Acidification potential (AP)	kg SO_2 eq.	2.08E-02	1.39E-04	5.87E-04	2.10E-03	4.65E-05	2.23E-04
Eutrophication potential (EP)	kg PO_4^{3-} eq.	5.02E-03	3.08E-05	2.22E-04	1.35E-03	1.03E-05	5.01E-05
Formation potential of tropospheric ozone (POCP)	kg C_2H_4 eq.	1.11E-03	8.24E-06	7.28E-05	6.07E-04	2.75E-06	1.03E-05
Abiotic depletion potential – Elements	kg Sb eq.	4.63E-06	9.86E-08	8.44E-07	1.98E-06	3.29E-08	5.76E-08
Abiotic depletion potential – Fossil resources	MJ, net calorific value	1.41E+02	8.69E-01	2.96E+00	7.66E+00	2.90E-01	8.43E-01
Water scarcity potential	m^3 eq.	2.77E+00	5.22E-03	1.14E-01	5.03E-01	1.74E-03	3.13E-02

Use of resources

PARAMETER		UNIT	A1-A3	A4	A5	B2	C2	C4
Primary energy resources – Renewable	Use as energy carrier	MJ	8.36E+00	9.65E-03	1.50E-01	3.74E+00	3.22E-03	8.82E-03
	Used as raw materials	MJ	1.95E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	TOTAL	MJ	1.03E+01	9.65E-03	1.50E-01	3.74E+00	3.22E-03	8.82E-03
Primary energy resources – Non-renewable	Use as energy carrier	MJ	1.61E+02	9.39E-01	3.48E+00	9.50E+00	3.13E-01	9.10E-01
	Used as raw materials	MJ	7.38E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	TOTAL	MJ	2.35E+02	9.39E-01	3.48E+00	9.50E+00	3.13E-01	9.10E-01
Secondary material		kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Renewable secondary fuels		MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-renewable secondary fuels		MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Net use of fresh water		m^3	4.29E-04	0.00E+00	0.00E+00	5.00E-03	0.00E+00	0.00E+00

Waste production and output flows

Waste production

PARAMETER	UNIT	A1-A3	A4	A5	B2	C2	C4
Hazardous waste disposed	kg	3.59E-04	4.86E-07	2.02E-06	5.78E-06	1.62E-07	5.70E-07
Non-hazardous waste disposed	kg	6.01E-01	7.53E-02	2.66E-01	4.73E-02	2.51E-02	4.12E+00
Radioactive waste disposed	kg	2.96E-04	6.02E-06	8.65E-06	1.82E-05	2.01E-06	5.66E-06

Output flows

PARAMETER	UNIT	A1-A3	A4	A5	B2	C2	C4
Components for reuse	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling	kg	0.00E+00	0.00E+00	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	0.00E+00	0.00E+00	0.00E+00
Exported energy, electricity	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Additional information

1) EPD based upon an underlying LCA of the Ossett manufacturing facility, with operational data obtained for the period 1st January 2018 to 31st December 2018. Ecoinvent 3 (2019), with Simpapro 9.0.0.30 (2019) was used for the background data. All relevant inputs and outputs have been considered in the LCA. The neglected input flows do not exceed 1% (mass or energy) of the total individually, or 5% in total. An electricity grid mix based upon the Haven Power annual fuel mix disclosure statement was used. For characterization factors: CML baseline for the GWP, ODP, AP, EP, POCP, ADP-elements, ADP-fossil resources, CED for Primary energy resources renewable used as energy carrier and primary energy resources non-renewable used as an energy carrier, AWARE for water scarcity potential. Lower heating value was used for primary energy resources renewable/non-renewable used as raw materials. This data was obtained from the Phyllis 2 database.

2) To achieve optimal whole Life Costings, products must be correctly installed and maintained in accordance with manufacturers instructions:
https://www.burmatex.co.uk/technical/caring-for-your-carpet/

3) For End of Life Take back options please contact Burmatex on 01924 262525 or www.burmatex.co.uk/contact-us/ for more information

References

General Programme Instructions of the International EPD® System. Version 3.0.
PCR 2012:01. Construction Products and Construction Services. Version 2.3
PCR 2012:01-SUB-PCR-F. Resilient, Textile and Laminate Floor Coverings (EN 16810:2017). Date 2018-11-22
ISO 14040: 2006 Environmental management - Life cycle assessment – Principles and Framework
ISO 14044: 2006 Environmental management - Life cycle assessment - Requirements and guidelines
ISO 14025: 2005 Environmental labels and declarations -- Type III environmental declarations -- Principles and procedures
EN 15804: 2012+A1:2013 Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products
EN 15942:2011 Sustainability of construction works – Environmental product declarations – Communication format business-to-business
EN 16810:2017 Resilient, textile and laminate floor coverings. Environmental product declarations. Product category rules
CEN /TR 15941:2010 Sustainability of construction works – Environmental product declarations – Methodology for the selection and use of generic data
Construction Products Regulation, Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011

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