

# Environmental Product Declaration



In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

## Burmatex<sup>®</sup>

MANUFACTURERS OF CREATIVE FLOORING 

### dapple<sup>®</sup> carpet tiles

Thrive<sup>®</sup> matter recycled yarn

BioBase<sup>™</sup> recycled backing

Made in the UK

Programme:	The International EPD <sup>®</sup> System, <a href="http://www.environdec.com">www.environdec.com</a>
Programme operator:	EPD International AB
EPD registration number:	S-P-08169
Publication date:	2023-04-01
Revision date	2023-06-01
Valid until:	2028-03-31

*Details of revision are described on page 10 of this EPD. An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at [www.environdec.com](http://www.environdec.com)*



## dapple® carpet tiles

### General information

#### Programme information

<b>Programme:</b>	The International EPD® System
<b>Address:</b>	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
<b>Website:</b>	<a href="http://www.environdec.com">www.environdec.com</a>
<b>E-mail:</b>	<a href="mailto:info@environdec.com">info@environdec.com</a>

#### Accountabilities for PCR, LCA and independent, third-party verification

##### Product Category Rules (PCR)

CEN standard EN 15804 serves as the Core Product Category Rules (PCR)

Product Category Rules (PCR): C-PCR-004 Resilient, textile and laminate floor coverings (EN 16810:2017)

UN CPC code(s): 272 Carpets and other textile floor coverings

PCR review was conducted by: The Technical Committee of the International EPD® System. See <https://www.environdec.com/about-us/the-international-epd-system-about-the-system> for a list of members. The review panel may be contacted via the Secretariat [www.environdec.com/contact](http://www.environdec.com/contact).

##### Life Cycle Assessment (LCA)

LCA accountability: Renuables Ltd [[www.renuables.co.uk](http://www.renuables.co.uk)]

##### Third-party verification

Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:

EPD verification by individual verifier, Dr. Hudai Kara, Metsims Sustainability Consulting [[www.metsims.com](http://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 registered in different EPD programmes, or not compliant with EN 15804, may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same version number) or be based on fully-aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

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### Company information

**Owner of the EPD:** Burmatex Limited

**Contact:** info@burmatex.co.uk

**Description of the organisation:** Burmatex® is one of the UK's leading designers and manufacturers of contract carpet tiles and planks.

**Name and location of production site(s):** Victoria Mills, The Green, Ossett, WF5 0AN, UK.

All Burmatex® carpet/carpet tile/carpet plank ranges are made at its single UK manufacturing site in Ossett.

### Product information

**Product name:** dapple®

**Product identification:** Multi Level Loop

**Product description:** 50cm x 50cm tiles on a BioBase™ backing, using carbon negative Thrive® matter recycled yarn

**UN CPC code:** 272 Carpets and other textile floor coverings

**Geographical scope:** Global

### LCA information

**Functional unit / declared unit:** One square metre of floor covering

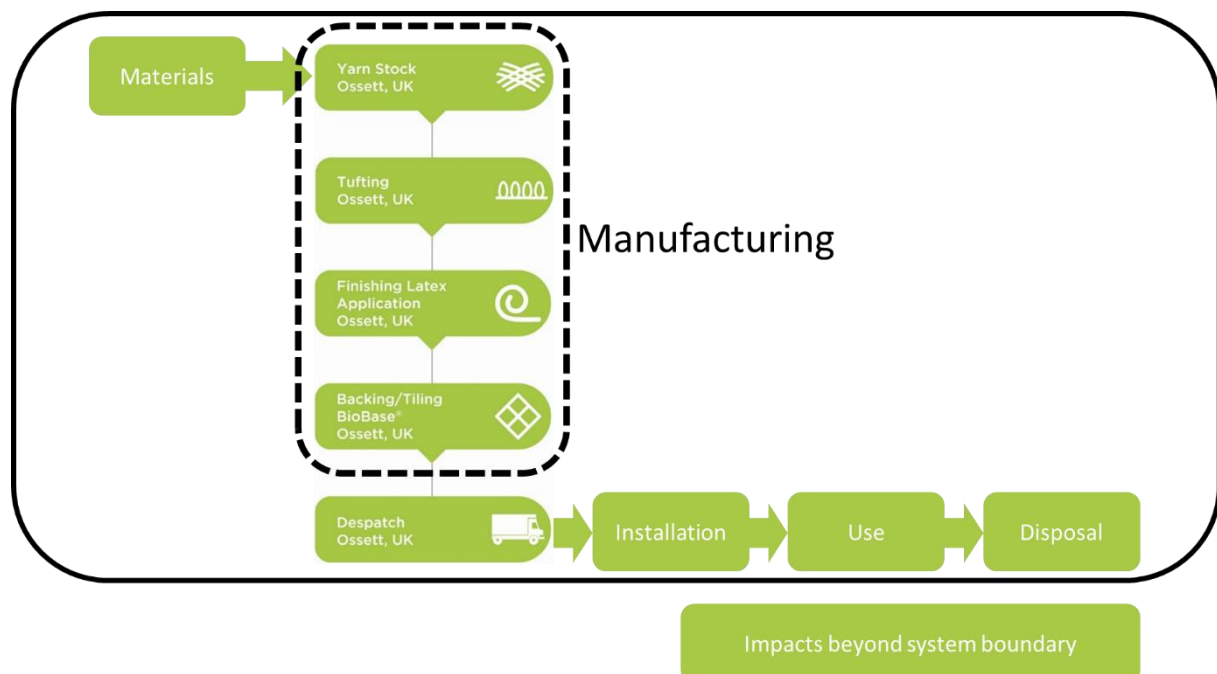
**Reference service life:** 15 years

**Time representativeness:** 2021

**Database(s) and LCA software used:** Ecoinvent 3.9 with Simapro 9.4.

**Description of system boundaries:** Cradle to grave plus module D (A + B + C) + D.

**System diagram:**



### More information:

This assessment covers the life cycle stages for production, installation, maintenance and disposal.

EPD is based upon an underlying LCA of the Ossett manufacturing facility, with operational data obtained for the period 1st January 2020 to 31st December 2020. All relevant inputs and outputs have

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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 for 2020 was used (year-to-year variation in primary energy mix is less than 1%). For characterization factors see: CML baseline for the GWP, AP, ADP-elements, ADP-fossil resources, ReCiPe for POCP and EP, CED for Primary energy resources renewable/non-renewable used as energy carrier, AWARE for water scarcity potential. Lower heating value was used for all calculations involving primary energy resources including PERM, PENRM and recovered energy from wastes and end of life (see <https://www.environdec.com/resources/indicators> for more information). 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. The GHG emissions as calculated in the EPD are offset in a scheme as detailed in the Further Environmental Information section. The emissions associated with the nylon fibres are also offset by the manufacturer (Universal Fibers). The offsetting of emissions is not included in the EPD or underlying LCA, in accordance with the requirements of EN 15804:2012+A2:2019/AC:2021.

**Modules A1-A5:** Energy Supply and production of the basic material, processing of secondary material, auxiliary material, transport of the material to the manufacturing site, emissions, waste water treatment, packaging material and waste processing up to the landfill disposal of residual waste. Transport to installation site assume average of 150 km, using 80% load factor, pallet network. 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<sup>2</sup>, assuming 30% solids.

**Modules B1-B7:** Vacuum cleaning – assume 250 days per year = 0.377 kWh/m<sup>2</sup>/y. Deep cleaning every six months, requiring 0.12 kg non-ionic surfactant cleaning agent and 0.005 m<sup>3</sup> of water per m<sup>2</sup> per year. No repair, replacement, or refurbishment assumed during 15-year reference service life.

**Modules C1-C4:** Manual removal assumed. Disposal to landfill with transport distance of 50 km. Landfill disposal is considered worst case. Other end of life scenarios are possible, such as incineration with energy recovery, or use as a fuel source for cement production. It is assumed that 10% by weight of the material is sent to landfill with the remainder leaving the system boundary. Emissions associated with incineration declared in module D are reported in C3.

**Module D:** It is assumed that 90% of the carpet material is recovered at end of life and incinerated with energy recovery of the calorific content, substituting for the burning of fossil methane in a small heating plant.

Where modules have zero entries, they are not reported in the tables in order to make the information more legible. This scenario is currently in use and is representative for one of the most likely scenario alternatives.

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Modules declared, geographical scope, share of specific data (in GWP-GHG results) and data variation (in GWP-GHG results)

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage		
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential		
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D		
Modules declared	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Geography	GLO	GLO	UK	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	
Specific data used	>90%					-	-	-	-	-	-	-	-	-	-	-	-	-	
Variation – products	N/A					-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	Single site					-	-	-	-	-	-	-	-	-	-	-	-	-	-

## Content information

Product components	Weight, kg	Post-consumer material, weight-%	Biogenic material, weight-% and kg C/kg
Nylon yarn	0.7	100	0
Latex	0.4	0	0
Glass fibre	0.1	0	0
Polypropylene	0.1	0	0
PET	0.1	0	0
Limestone	2.1	0	0
Bitumen	0.6	0	0
<b>TOTAL</b>	<b>4.1</b>	<b>17</b>	<b>0</b>
Packaging materials	Weight, kg	Weight-% (versus the product)	Weight biogenic carbon, kg C
Polyethylene	0.004	0.1	0.00
Cardboard	0.120	2.9	0.05
<b>TOTAL</b>	<b>0.124</b>	<b>3.0</b>	<b>0.05</b>

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
N/A	N/A	N/A	N/A

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### Environmental Information

This EPD contains information about environmental impact, use of resources and waste production in the form of quantitative indicators. The following abbreviations and have been used in the tables which quantify environmental performance:

Indicator	Abbreviation
Global warming potential (Fossil, biogenic, land use and transformation (LUT))	GWP
Depletion potential of the stratospheric ozone layer	ODP
Acidification potential	AP
Eutrophication potential	EP
Formation potential of tropospheric ozone	POCP
Abiotic depletion potential – Elements	ADPE
Abiotic depletion potential – Fossil resources	ADPF
Water scarcity potential	WSP
Primary energy resources – Renewable (use as energy carrier)	PERE
Primary energy resources – Renewable (use raw materials)	PERM
Primary energy resources – Renewable (total)	PERT
Primary energy resources – Non-renewable (use as energy carrier)	PENRE
Primary energy resources – Non-renewable (use raw materials)	PENRM
Primary energy resources – Non-renewable (total)	PENRT
Secondary material	SM
Renewable secondary fuels	RSF
Non-renewable secondary fuels	NRSF
Net use of fresh water	NUFW
Hazardous waste disposed	HWD
Non-hazardous waste disposed	NHWD
Radioactive waste disposed	RWD
Components for re-use	CRU
Material for recycling	MFR
Materials for energy recovery	MFER
Exported energy, electricity	EEE
Exported energy, thermal	EET
Particulate Matter emissions	PM
Ionizing radiation, human health	IRP
Eco-toxicity - freshwater	ETP-fw
Human toxicity, cancer effect	HTP-c
Human toxicity, non-cancer effects	HTP-nc
Land use related impacts/Soil quality	SQP

All environmental data is given for the functional unit which is 1 m<sup>2</sup> of floor covering with packaging.

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### Environmental Information for 1m<sup>2</sup> of flooring product

#### Potential environmental impact– mandatory indicators according to EN 15804

Indicator	Unit	A1-A3	A4	A5	B2	C2	C3	C4	D
GWP-fossil	kg CO <sub>2</sub> eq.	3.27E+00	5.15E-02	1.53E-01	8.16E+00	1.72E-02	3.90E+00	3.54E-03	-1.93E+00
GWP-biogenic	kg CO <sub>2</sub> eq.	2.54E-03	1.01E-05	1.84E-04	1.49E-02	3.37E-06	1.27E-04	1.54E-06	-3.89E-04
GWP-luluc	kg CO <sub>2</sub> eq.	3.48E-02	1.49E-05	1.75E-04	1.21E+00	4.98E-06	3.26E-05	1.98E-06	-5.50E-04
GWP-total	kg CO <sub>2</sub> eq.	3.31E+00	5.16E-02	1.54E-01	9.39E+00	1.72E-02	3.90E+00	3.54E-03	-1.93E+00
ODP	kg CFC 11 eq.	5.65E-07	1.07E-08	1.50E-08	4.14E-07	3.57E-09	1.02E-03	9.56E-10	-2.22E-07
AP	mol H <sup>+</sup> eq.	1.55E-02	1.60E-04	9.00E-04	4.64E-02	5.34E-05	9.60E-04	2.97E-05	-3.84E-03
EP-freshwater	kg P eq.	2.66E-03	2.62E-05	2.24E-04	1.37E-02	8.73E-06	1.07E-05	5.00E-06	-5.53E-04
EP-marine	kg N eq.	3.05E-03	3.36E-05	1.35E-04	1.38E-02	1.12E-05	4.99E-04	9.82E-06	-4.10E-04
EP-terrestrial	mol N eq.	2.72E-02	3.66E-04	1.40E-03	8.19E-02	1.22E-04	4.29E-03	1.07E-04	-4.22E-03
POCP	kg NMVOC eq.	9.90E-03	1.51E-04	5.43E-04	2.90E-02	5.03E-05	1.02E-03	3.12E-05	-2.30E-03
ADP-minerals&metals*	kg Sb eq.	6.09E-06	9.54E-08	8.24E-07	2.19E-05	3.18E-08	1.16E-07	5.58E-09	-6.88E-07
ADP-fossil*	MJ	8.01E+01	8.36E-01	3.11E+00	1.21E+02	2.79E-01	6.79E-01	8.02E-02	-2.69E+01
WDP*	m <sup>3</sup>	1.15E+00	4.37E-03	1.18E-01	2.02E+00	1.46E-03	2.39E-01	3.05E-03	-4.56E-02

\* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

Note: All modules, are declared, but where there are nil entries, they are not included in the EPD to make the data more legible.

#### Potential environmental impact – additional mandatory and voluntary indicators

Indicator	Unit	A1-A3	A4	A5	B2	C2	C3	C4	D
PM	Disease incidence	1.07E-07	4.59E-09	7.71E-09	3.20E-07	1.53E-09	4.82E-09	5.22E-10	-1.56E-08
IRP <sup>1</sup>	kBq U235 eq.	2.48E-01	5.43E-03	1.31E-02	1.75E+00	1.81E-03	2.51E-03	3.97E-04	-3.70E-02
ETP-fw	CTUe	3.25E+00	5.25E-02	8.79E-02	1.63E+01	1.75E-02	1.54E-02	4.76E-03	-4.02E-02
HTP-c	CTUh	1.11E-10	1.90E-12	8.60E-12	6.60E-10	6.34E-13	5.04E-12	3.37E-13	-1.63E-10
HTP-nc	CTUh	1.22E-10	1.45E-11	1.42E-11	1.11E-09	4.85E-12	3.29E-12	1.87E-12	-1.12E-11
SQP	dimensionless	3.67E+01	9.98E-01	7.01E-01	7.76E+01	3.33E-01	2.25E-01	1.49E-01	-1.23E+00
GWP-GHG <sup>2</sup>	kgCO <sub>2</sub> e	3.31E+00	5.16E-02	1.54E-01	9.39E+00	1.72E-02	3.90E+00	3.54E-03	-1.93E+00

<sup>1</sup> This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure or waste disposal. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

<sup>2</sup> This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO<sub>2</sub> is set to zero.





## eco<sub>2</sub>matters

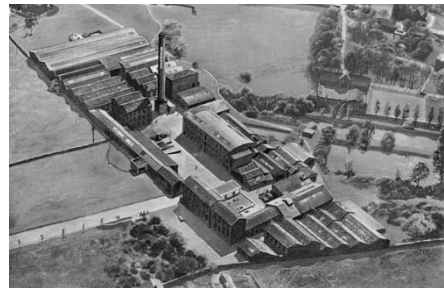
### Our heritage

Originally established in the UK in 1917 as J&F Burrows, we have been recycling for over 100 years. We began by recycling wool and cotton textile waste for resale to the textile industry, for use in the manufacturer of clothing.

With the advent of synthetic fibres, we quickly adapted to also recycle synthetic waste, eventually focusing solely on the recycling of nylon and polypropylene. With the development of a new type of carpet, needlefelt (now called fibre bonded), we saw an opportunity to use this recycled material to produce our own finished products.

The Burmatex® brand was created in 1976. For over 50 years, the careful selection, reprocessing and recycling of industrial synthetic waste has enabled us to produce sustainable products.

Today Burmatex® manufactures a much broader range of products, including designer loop and low level loop nylon carpet tiles. Still, the fundamental principles of recycling and reuse remain at the core of our operation, and form the foundations of the **eco<sub>2</sub>matters** sustainability principles.



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*“Our single site operation in Ossett, UK, has been recycling for over 100 years”*

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### Details of carbon-offsetting scheme:

Thrive® matter yarn supplied by Universal Fibres® is stated to be carbon negative. Universal Fibres® have conducted a Product Life Cycle Assessment to determine the Thrive® matter Carbon Footprint and produced their own EPD. They have then offset 125% (-0.1 kg) of the resultant CO<sub>2</sub> eq. to compensate for more than the yarn Carbon Footprint. The dapple® range is net carbon neutral. This has been achieved, in partnership with Universal Fibres®, by the offsetting of the 3.31 kg CO<sub>2</sub> eq. highlighted in this EPD.

The off-setting is arranged through the Carbon Fund, an internationally recognised offsetting organisation. Their website [<https://carbonfund.org>] provides details of projects in which they are involved.

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/>

For our Recovery Take Back Service please contact Burmatex® on 01924 262525 or [www.burmatex.co.uk/contact-us/](http://www.burmatex.co.uk/contact-us/) for more information.

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### Differences versus previous versions

Changed to most recent EN 15804+A2 format for the EPD, including new indicator categories, using new EPD template. Revised the reference service life from 1 to 15 years to match the warranty period. Latex formulation revised to include a proportion of limestone in the product, which was not previously accounted for. The product now uses Thrive® matter yarn supplied by Universal Fibers® (recycled fibre) rather than virgin nylon directly from fossil resources.

### References

General Programme Instructions of the International EPD® System. Version 3.01.

PCR 2019:14, version 1.2 Construction products.

PCR 2019:14- C-PCR-004 Resilient, textile and laminate floor coverings (EN 16810:2017)

EN 15804:2012+A2:2019/AC:2021 Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products.

ISO 14025:2006 Environmental labels and declarations — Type III environmental declarations - Principles and procedures.

ISO 21930:2017 Sustainability in buildings and civil engineering works — Core rules for environmental product declarations of construction products and services

EN 16810:2017 Resilient, textile and laminate floor coverings - Environmental product declarations - Product category rules.

Thrive® matter Nylon 6 fiber from Universal Fibers® Environmental Product Declaration UL 101.1 (2022)