

Environmental Product Declaration



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

Burmatex[®]

MANUFACTURERS OF CREATIVE FLOORING 

balance grid[®], balance grade[®] & balance ground[®] carpet tiles

Thrive[®] matter carbon negative recycled yarn
BioBase[®] recycled backing

Made in the UK

Programme:	The International EPD [®] System, www.environdec.com
Programme operator:	EPD International AB
EPD registration number:	S-P-08172
Publication date:	2023-03-31
Revision 2 date:	2024-03-28
Valid until:	2029-03-27

Details of revision listed on page 10. 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



balance grid®, balance grade® & balance ground® carpet tiles

General information

Programme information

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

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): PCR 2019:14 version 1.3.2 Construction products, 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 .
Life Cycle Assessment (LCA)
LCA accountability: Renuables Ltd [www.renuables.co.uk]
Third-party verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: <input checked="" type="checkbox"/> EPD verification by individual 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: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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: balance grid®, balance grade® & balance ground® carpet tiles

Product identification: Multi Level Loop

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

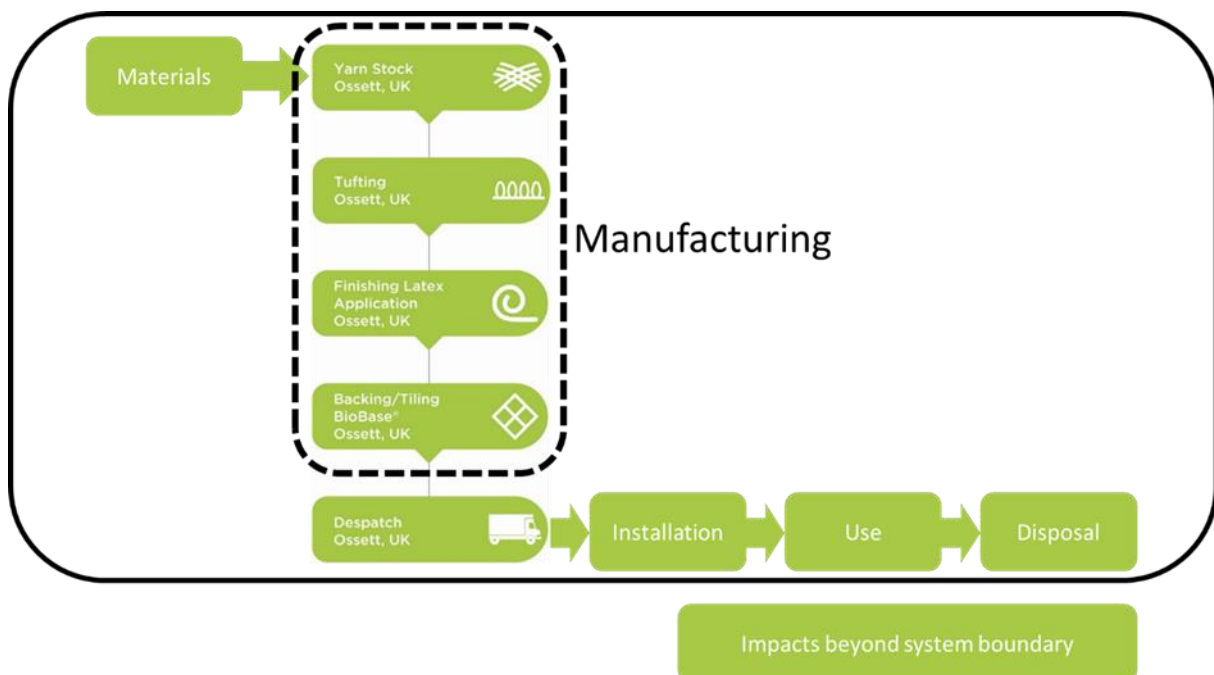
Reference service life: 1 year

Time representativeness: 2022

Database(s) and LCA software used: Ecoinvent 3.9 with Simapro 9.5.

Description of system boundaries: Cradle to grave (A + B + C).

System diagram:



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More information:

EPD is based upon an underlying LCA of the Ossett manufacturing facility, with operational data obtained for the period 1st January 2022 to 31st December 2022. 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 for 2022 was used (year-to-year variation in primary energy mix is less than 1%). The primary energy mix was: renewables 94.30%, natural gas 4.30%, nuclear 0.40%, coal 0.50%, other fuels 0.40%. The renewables primary energy mix was: wind 53%, bioenergy 29.8%, photovoltaic 13.6%, hydropower 3.6%. GWP = 0.0897 kgCO₂e/kWh. For characterization factors EF3.1 was used for all impact characterisation factors, except 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). This information was obtained from the Phyllis 2 database. Where modules have zero entries, they are not reported in the tables in order to make the information more legible.

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 m², assuming 30% solids.

B2 Maintenance

Vacuum cleaning daily – assume 250 days per year = 0.377 kWh/m²/y. Deep cleaning every six months, this would require 0.12 kg non-ionic surfactant cleaning agent and 0.005 m³ of water per m² per year. The reference service life is 1 year and the total impacts associated with maintenance for 1 year are reported. For actual service life of the product multiply the values in the table by the appropriate number of years.

C2 Transport

Assume 50 km to waste disposal facility.

C3 Waste processing

Size reduction is assumed prior to disposal, or exporting from system.

C4 Disposal

Assume 10 % of material goes to landfill at end of life. 90% of material is exported out of the system boundary at end of life and used for energy generation, which is reported in module D.

D Impacts outside of system boundary

It is assumed that 90% of the material is incinerated at end of life with recovery of calorific content and with substitution of fossil-derived gas energy with an efficiency of 80%.

These scenarios are currently in use and are typical of the lifecycle of the Burmatex products.

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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	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	
Specific data used	15%					-	-	-	-	-	-	-	-	-	-	-	-	-	
Variation – products	0%					-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0% (single site)					-	-	-	-	-	-	-	-	-	-	-	-	-	-

Content information

Product components	Weight, kg	Post-consumer material, weight-%	Biogenic material, weight-% and kg C/kg
Nylon yarn (Thrive Matter – Universal)	0.6	100	0
Scrim (PET+PA6)	0.1	0	0
Black latex	0.5	0	0
Polypropylene fibre	>0.1	0	0
Glass fibre	>0.1	0	0
Bitumen	0.6	0	0
Limestone	2.1	0	0
TOTAL	4.0	15.4	0
Packaging materials	Weight, kg	Weight-% (versus the product)	Weight biogenic carbon, kg C
Polyethylene	0.004	0.1	0.00
Cardboard	0.120	3.0	0.06
TOTAL	0.124	3.1	0.06

This product contains no dangerous substances from the candidate list of SVHC for Authorisation.

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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 m² of floor covering with packaging.

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Environmental Information for 1m² 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 ₂ eq.	3.38E+00	6.04E-02	1.53E-01	5.44E-01	2.01E-02	3.82E+00	3.47E-03	-3.44E+00
GWP-biogenic	kg CO ₂ eq.	-2.20E-01	0.00E+00	2.20E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GWP-luluc	kg CO ₂ eq.	3.45E-02	2.95E-05	1.75E-04	8.09E-02	9.82E-06	3.19E-05	1.94E-06	-9.83E-04
GWP-total	kg CO ₂ eq.	3.19E+00	6.04E-02	1.75E-01	6.25E-01	2.01E-02	3.82E+00	3.47E-03	-3.44E+00
ODP	kg CFC 11 eq.	9.28E-07	1.37E-09	1.49E-08	2.76E-08	4.57E-10	9.98E-04	9.37E-10	-3.96E-07
AP	mol H ⁺ eq.	3.56E-02	1.49E-04	9.00E-04	3.09E-03	4.98E-05	9.39E-04	2.91E-05	-6.85E-03
EP-freshwater	kg P eq.	1.48E-03	4.46E-06	2.24E-04	9.10E-04	1.49E-06	1.05E-05	4.91E-06	-9.88E-04
EP-marine	kg N eq.	1.21E-02	4.07E-05	1.35E-04	9.22E-04	1.36E-05	4.89E-04	9.63E-06	-7.32E-04
EP-terrestrial	mol N eq.	7.12E-02	4.18E-04	1.40E-03	5.46E-03	1.39E-04	4.19E-03	1.05E-04	-7.54E-03
POCP	kg NMVOC eq.	2.66E-02	2.44E-04	5.44E-04	1.94E-03	8.14E-05	9.98E-04	3.06E-05	-4.11E-03
ADP-minerals&metals*	kg Sb eq.	1.65E-05	1.69E-07	8.25E-07	1.46E-06	5.63E-08	1.14E-07	5.47E-09	-1.23E-06
ADP-fossil*	MJ	8.21E+01	9.17E-01	3.11E+00	8.06E+00	3.06E-01	6.64E-01	7.86E-02	-4.80E+01
WDP*	m ³	7.64E+00	4.37E-03	1.18E-01	1.35E-01	1.46E-03	2.34E-01	2.99E-03	-8.15E-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.

Indicator	Unit	A1-A3	A4	A5	B2	C2	C3	C4	D
GWP-GHG	kg CO ₂ eq.	3.41E+00	6.04E-02	1.53E-01	6.25E-01	2.01E-02	3.82E+00	3.47E-03	-3.44E+00

Potential environmental impact – additional mandatory and voluntary indicators

Indicator	Unit	A1-A3	A4	A5	B2	C2	C3	C4	D
PM	Disease incidence	1.21E-07	5.98E-09	7.72E-09	2.13E-08	1.99E-09	4.72E-09	5.12E-10	-2.78E-08
IRP	kBq U235 eq.	9.68E-02	1.16E-03	1.31E-02	1.17E-01	3.85E-04	2.45E-03	3.90E-04	-6.61E-02
ETP-fw	CTUe	1.80E+01	4.41E-01	9.19E-02	1.08E+00	1.47E-01	1.51E-02	4.66E-03	-7.19E-02
HTP-c	CTUh	5.96E-10	2.69E-11	8.85E-12	4.40E-11	8.95E-12	4.93E-12	3.30E-13	-2.91E-10
HTP-nc	CTUh	1.32E-08	6.55E-10	2.08E-11	7.39E-11	2.18E-10	3.22E-12	1.84E-12	-2.01E-11
SQP	dimensionless	2.98E+01	9.30E-01	6.99E-01	5.17E+00	3.10E-01	2.20E-01	1.46E-01	-2.20E+00

Use of resources

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Indicator	Unit	A1-A3	A4	A5	B2	C2	C3	C4	D
PERE	MJ	9.45E+00	1.34E-02	1.35E-01	8.32E-01	4.47E-03	2.79E-02	2.02E-03	-5.01E-01
PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	9.45E+00	1.34E-02	1.35E-01	8.32E-01	4.47E-03	2.79E-02	2.02E-03	-5.01E-01
PENRE	MJ	8.13E+01	9.74E-01	3.55E+00	1.04E+01	3.25E-01	7.19E-01	8.51E-02	-5.41E+01
PENRM	MJ	5.80E+01	0.00E+00	1.97E+00	2.63E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	1.39E+02	9.74E-01	5.52E+00	1.30E+01	3.25E-01	7.19E-01	8.51E-02	-5.41E+01
SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m ³	4.29E-04	0.00E+00	6.00E-05	5.00E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Waste production and output flows

Waste production

Indicator	Unit	A1-A3	A4	A5	B2	C2	C3	C4	D
HWD	kg	3.48E-04	5.70E-06	2.42E-06	3.92E-06	1.90E-06	2.10E-06	5.49E-08	-5.23E-05
NHWD	kg	6.99E-01	8.03E-02	2.66E-01	3.64E-02	2.68E-02	6.33E-02	4.03E-01	-3.03E-02
RWD	kg	3.27E-05	2.79E-07	7.72E-06	3.30E-05	9.31E-08	1.96E-06	5.31E-07	-2.00E-05

Output flows

Indicator	Unit	A1-A3	A4	A5	B2	C2	C3	C4	D
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFER	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.62E+00	0.00E+00	0.00E+00
EEE	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EET	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.22E+01

Information on biogenic carbon content

Biogenic carbon content	kgC	kgCO _{2e}
In product	0.00	0.00
In packaging	0.06	0.22

Note: 1 kgC = 44/12kgCO_{2e}

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Additional environmental information

eco₂matters

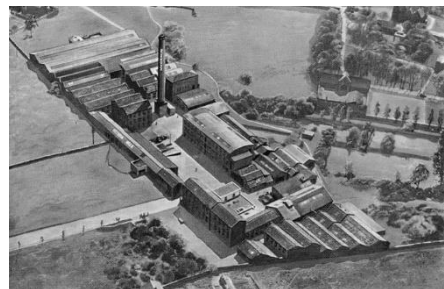
Our heritage

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® manufacturers 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 **eco₂matters** sustainability principles.



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

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/>

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 CO₂ eq. to compensate for more than the yarn Carbon Footprint. The context range is net carbon neutral. This has been achieved, in partnership with Universal Fibres®, by the offsetting of the 3.19 kg CO₂ 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.

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

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Difference compared to previous versions

Background database updated from Ecoinvent 3.9 with Simapro 9.4 to Ecoinvent 3.9 with Simapro 9.5. Revision to quantities used to manufacture product. Reference service life changed to one year. Factory data (energy use, waste generated, etc.) updated to 2022 reference year. Characterisation factors now based on EF3.1 rather than EF3.0.

References

General Program Instructions of the International EPD® System. Version 4.0.

PCR 2019:14 version 1.3.2 Construction products.

PCR 2019:14-c-PCR-004 Resilient, textile and laminate floor coverings (EN 16810) (2019-12-20)

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.

Environmental Product Declaration number UL 101.1 Thrive matter nylon 6 fiber, manufactured by Universal Fibers.