

Statement of Verification

BREG EN EPD No.: 000269

Issue 1

This is to verify that the
Environmental Product Declaration
provided by:
Texfelt Ltd



is in accordance with the requirements of:
EN 15804:2012+A1:2013
and
BRE Global Scheme Document SD207

This declaration is for:
Texfelt Springbond Underlay

Company Address

Cutler Hights Business Park
Cutler Hights Lane
Bradford
West Yorkshire
BD4 9AW



Texfelt
Underlay & Fibre Technology

Emma Baker
Operator

14 September 2023
Date of this Issue

02 October 2019
Date of First Issue

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Expiry Date



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Environmental Product Declaration

EPD Number: 000269

General Information

EPD Programme Operator	Applicable Product Category Rules
BRE Global Watford, Herts WD25 9XX United Kingdom	BRE Environmental Profiles 2013 Product Category Rules for Type III environmental product declaration of construction products to EN 15804:2012+A1:2013
Commissioner of LCA study	LCA consultant/Tool
Texfelt Ltd Cutler Heights Business Park Cutler Heights Lane Bradford West Yorkshire BD4 9AW	Andrew Dutfield / BRE LINA v 2.0
Declared Unit	Applicability/Coverage
1 m ² of 11mm thick 1.05 kg/m ² Texfelt Springbond underlay	Manufacturer specific product.
EPD Type	Background database
Cradle to Gate	ecoinvent v3.2
Demonstration of Verification	
CEN standard EN 15804 serves as the core PCR ^a	
Independent verification of the declaration and data according to EN ISO 14025:2010 <input type="checkbox"/> Internal <input checked="" type="checkbox"/> External	
(Where appropriate ^b)Third party verifier: Jane Anderson	
a: Product category rules b: Optional for business-to-business communication; mandatory for business-to-consumer communication (see EN ISO 14025:2010, 9.4)	
Comparability	
Environmental Product Declarations from different programmes may not be comparable if not compliant with EN 15804:2012+A1:2013. Comparability is further dependent on the specific product category rules, system boundaries and allocations, and background data sources. See Clause 5.3 of EN 15804:2012+A1:2013 for further guidance	

Information modules covered

Product			Construction		Use stage							End-of-life				Benefits and loads beyond the system boundary
					Related to the building fabric					Related to the building						
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Raw materials supply	Transport	Manufacturing	Transport to site	Construction – Installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction demolition	Transport	Waste processing	Disposal	Reuse, Recovery and/or Recycling potential
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Note: Ticks indicate the Information Modules declared.

Manufacturing site(s)

Texfelt Ltd
 Cutler Heights Business Park
 Cutler Heights Lane
 Bradford
 West Yorkshire
 BD4 9AW

Construction Product

Product Description

Non Woven, Thermo Bonded Carpet Underlay made from recycled and regenerated fibres. For use as support/comfort under and increasing longevity of carpet life. The product is unique insofar that it is made with recycled polyester fibres, including fibres manufactured from recycled, single use plastic bottles. Each roll of underlay contains a minimum of 150 single use plastic bottles.

Technical Information

Property	Value, Unit
Flammability (BS4790)	Pass – Low Radius
Underlay & Textile Floor Coverings (BS5808:1991 (2011))	11mm Luxury Use L/U, 9mm Heavy Contract HC/U, 7mm Heavy Contract HC/U
Breaking Strength & Elongation (BS2576:1986)	Breaking strength 193N (11mm), 82N (9mm), 293N (7mm), Elongation at 40N 0.643% (11mm), 1.59% (9mm), 0.861% (7mm)
Static Loading (BS4939:1987 (2003))	Thickness loss after 24 hrs recovery 19.7% (11mm), 18.8% (9mm), 25.9% (7mm)
Dynamic Loading (BS4052:1987)	Thickness loss after 1000 impacts 14.8% (11mm), 9.4% (9mm), 13.7% (7mm)
Work of Compression (BS4098:1975 (2003))	Mean work of compression retained 63.8% (11mm), 82.2% (9mm), 74.4% (7mm)
Resistance to Breaking & Cracking (BS5808 Appendix A:1991 (2011))	Degree of cracking – none

Property	Value, Unit
Thermal Insulation (BS4745)	2.1 Tog (11mm), 2.3 Tog (9mm), 1.66 Tog (7mm)
Thermal Conductivity (BS1902-5.8 (1992))	0.0476 W/M ² K (11mm), 0.0433 W/M ² K (9mm) 0.0603 W/M ² k (7mm)
Impact Sound Reduction (ISO140)	57 dB (11mm), 41 dB (9mm), 45 dB (7mm)
TVOC after 3 days	Pass (46.6 µg/m ³ – extremely low)
Sustainability	Fully recyclable at end of serviceable life



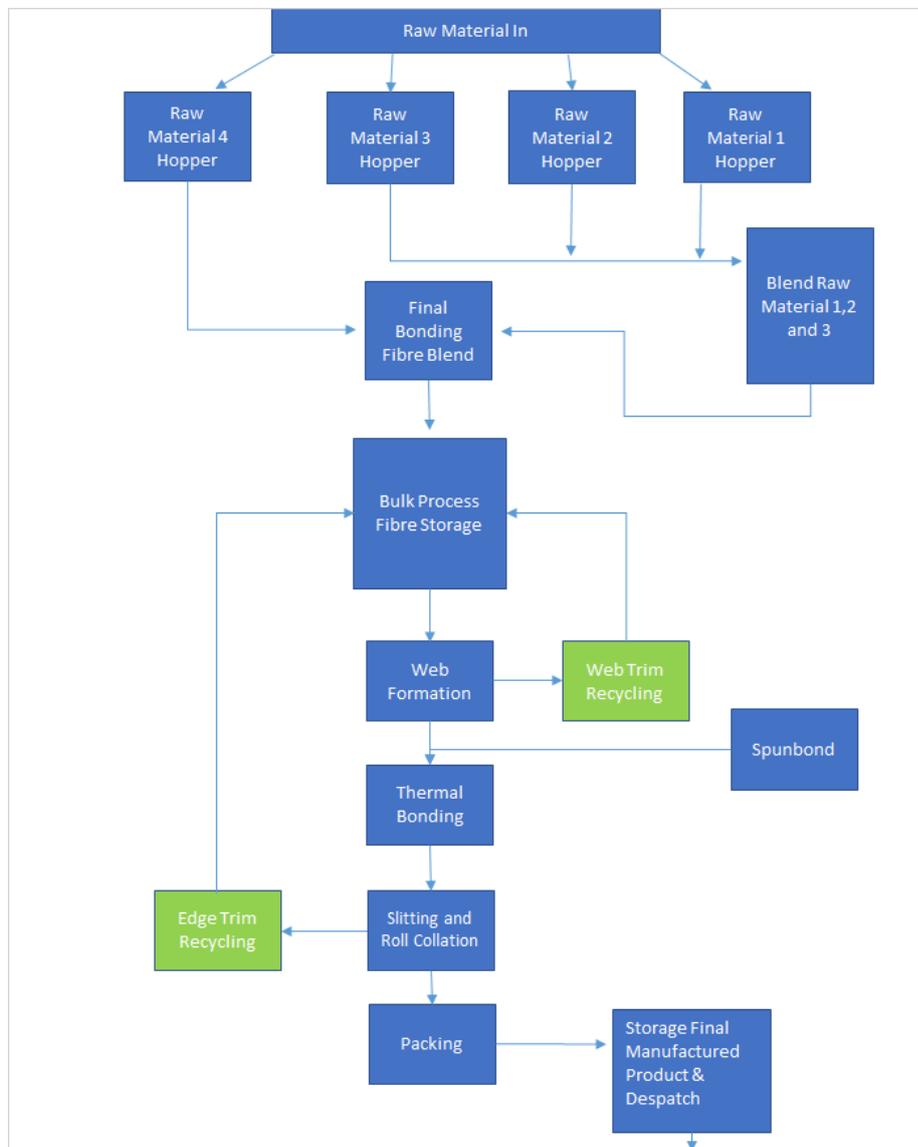
Main Product Contents

Material/Chemical Input	%
Regenerated polyester fibre	76
Low-melt polyester fibre	20
Re-pulled polyester fibre	4

Manufacturing Process

Non Woven Textile Manufacturing Process. A selection of specified fibres are blended by % weight, refined, carded and orientated using air flows. The laid web is then thermobonded prior to cutting to specified roll size. Finished rolls are then bagged and stored.

Process flow diagram



Construction Installation

Subfloors should be dry, clean and free of oil, grease & damp. Fitting should meet the British Standard code of practise BS5325 & be undertaken by experienced fitters.

Use Information

9mm & 11mm thicknesses are recommended for bedrooms, living rooms, hall, landings stairs and corridors. 9mm in addition is recommended for heavy floor, wheel traffic & castor chairs. 7mm rated to heavy contract and suitable for double stick applications in public high wear areas.

End of Life

Fully recyclable at end of serviceable life.

Life Cycle Assessment Calculation Rules

Declared unit description

1 m² of 11mm thick 1.05 kg/m² Texfelt Springbond underlay

System boundary

This is a cradle to gate EPD (i.e. processes covered in the extraction and processing in modules A1 to A3).

Data sources, quality and allocation

This EPD is for the 11mm thick product at 1.05 kg/m². Texfelt also manufactures Springbond underlay at 9mm (0.85 kg/m²) and 7mm (0.78kg/m²). The results for the 11mm Springbond underlay can be used for the 9mm and 7mm product with no further calculation.

Manufacturer-specific data from Texfelt Ltd covering a production period from 1st October 2018 to 29th March 2019 from the Bradford site has been used for this EPD.

No allocation of raw material inputs was required as total raw material usage for all products made over the production period was used. The Springbond product output forms 26% of Texfelt's total production by mass. Water usage and waste creation have been allocated at this percentage.

As Springbond typically runs at a slower speed through the manufacturing plant than other products, the energy consumed per sqm is greater in Springbond than it is in the other products. As lines are not metered, to ensure an appropriate and direct share of energy consumed was allocated, percentage of Springbond manufacturing days in the reference period was used. Electricity and natural gas were allocated at 29%.

Manufacturing data covering 1st January 2018 to 1st January 2019 was also sourced from the two suppliers of regenerated polyester fibre in Indonesia and Taiwan respectively because there were no suitable ecoinvent datasets to represent this raw material. Individual datasets for the secondary materials were compiled based on each supplier's data and modelled in LINA. Datasets include energy, water and waste for the production of the regenerated polyester fibres. Impacts associated with the production of the polyester flake and chip raw materials to the fibre production process are excluded as they are beyond the system boundary.

The supporting LCA study was carried out using BRE LINA v2.0. Secondary data is from the BRE LINA database v2.0.53 and the background LC1 datasets are based on ecoinvent v3.2 (2015).

Cut-off criteria

Data collected at the Bradford manufacturing site and the two suppliers of recycled polyester fibre in Indonesia and Taiwan respectively was used. The inventory process in this LCA includes all data related to raw material, packaging material and consumable items, and the associated transport to the manufacturing site. Process energy and water use and direct production waste are included.

LCA Results

The results per declared unit (1m² of the 11mm Texfelt Springbond underlay product) for the declared modules can be found in the following tables:

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing environmental impacts			GWP	ODP	AP	EP	POCP	ADPE	ADPF
			kg CO ₂ equiv.	kg CFC 11 equiv.	kg SO ₂ equiv.	kg (PO ₄) ³⁻ equiv.	kg C ₂ H ₄ equiv.	kg Sb equiv.	MJ, net calorific value.
Product stage	Raw material supply	A1	AGG	AGG	AGG	AGG	AGG	AGG	AGG
	Transport	A2	AGG	AGG	AGG	AGG	AGG	AGG	AGG
	Manufacturing	A3	AGG	AGG	AGG	AGG	AGG	AGG	AGG
	Total (of product stage)	A1-3	3.53E+00	2.06E-07	2.15E-02	5.25E-03	1.85E-03	7.38E-06	5.99E+01

GWP = Global Warming Potential;
 ODP = Ozone Depletion Potential;
 AP = Acidification Potential for Soil and Water;
 EP = Eutrophication Potential;

POCP = Formation potential of tropospheric Ozone;
 ADPE = Abiotic Depletion Potential – Elements;
 ADPF = Abiotic Depletion Potential – Fossil Fuels;

Parameters describing resource use, primary energy			PERE	PERM	PERT	PENRE	PENRM	PENRT
			MJ	MJ	MJ	MJ	MJ	MJ
Product stage	Raw material supply	A1	AGG	AGG	AGG	AGG	AGG	AGG
	Transport	A2	AGG	AGG	AGG	AGG	AGG	AGG
	Manufacturing	A3	AGG	AGG	AGG	AGG	AGG	AGG
	Total (of product stage)	A1-3	3.48E+00	1.22E-05	3.48E+00	5.70E+01	6.57E+00	6.36E+01

PERE = Use of renewable primary energy excluding renewable primary energy used as raw materials;
 PERM = Use of renewable primary energy resources used as raw materials;
 PERT = Total use of renewable primary energy resources;

PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials;
 PENRM = Use of non-renewable primary energy resources used as raw materials;
 PENRT = Total use of non-renewable primary energy resource

LCA Results (continued)

Parameters describing resource use, secondary materials and fuels, use of water						
			SM	RSF	NRSF	FW
			kg	MJ net calorific value	MJ net calorific value	m ³
Product stage	Raw material supply	A1	AGG	AGG	AGG	AGG
	Transport	A2	AGG	AGG	AGG	AGG
	Manufacturing	A3	AGG	AGG	AGG	AGG
	Total (of product stage)	A1-3	8.42E-01	0.00E+00	0.00E+00	5.32E-02

SM = Use of secondary material;
RSF = Use of renewable secondary fuels;

NRSF = Use of non-renewable secondary fuels;
FW = Net use of fresh water

Other environmental information describing waste categories						
			HWD	NHWD	RWD	
			kg	kg	kg	
Product stage	Raw material supply	A1	AGG	AGG	AGG	
	Transport	A2	AGG	AGG	AGG	
	Manufacturing	A3	AGG	AGG	AGG	
	Total (of product stage)	A1-3	2.56E-02	2.12E-01	1.43E-04	

HWD = Hazardous waste disposed;
NHWD = Non-hazardous waste disposed;
RWD = Radioactive waste disposed

Other environmental information describing output flows – at end of life						
			CRU	MFR	MER	EE
			kg	kg	kg	MJ per energy carrier
Product stage	Raw material supply	A1	AGG	AGG	AGG	AGG
	Transport	A2	AGG	AGG	AGG	AGG
	Manufacturing	A3	AGG	AGG	AGG	AGG
	Total (of product stage)	A1-3	4.59E-03	4.28E-02	0.00E+00	0.00E+00

CRU = Components for reuse;
MFR = Materials for recycling

MER = Materials for energy recovery;
EE = Exported Energy

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