Environmental Product Declaration

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

DNA Non-Vinyl Wallcovering

from

DESIGNTEX

Programme:	The International EPD System, www.environdec.com
Programme operator:	EPD International AB
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An EPD may be updated or depublished if conditions change. To find the latest version of the EPD and to confirm its validity, see www.environdec.com

GENERAL INFORMATION

Programme Information	
Programme:	The International EPD® System
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Product Category Rules (PCR)
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): *2019:14 Construction products (EN 15804+A2) 2.0.1*
PCR review was conducted by: *The Technical Committee of the International EPD System. See www.environdec.com for a list of members. Review chair: Claudia A. Peña, University of Concepción, Chile. The review panel may be contacted via the Secretariat www.environdec.com/contact*

Third-party Verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: ☒ **Individual EPD verification without a pre-verified LCA/EPD tool** Third-party verifier: *Freddy Navarro, LCACHECK SAS de CV* Approved by: 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 published in different EPD programmes, may not be comparable. For two EPDs to be comparable, they shall be based on the same PCR (including the same first-digit 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 identical scope in terms of included life-cycle stages (unless the excluded life-cycle stage is demonstrated to be insignificant); apply identical impact assessment methods (including the same version of characterisation factors); and be valid at the time of comparison.
For further information about comparability, see EN 15804 and ISO 14025.

INFORMATION ABOUT EPD OWNER

EPD Owner	Designtex 200 Hudson Street New York, NY 10013
LCA Practitioner	WAP Sustainability Consulting 103 Powell Ct, Suite 200 Brentwood, TN 37027

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Company Description

Designtex is the leading company in the development, design, and manufacturing of applied materials for the built environment. Designtex is a recognized innovator in the research and development of textiles, wallcoverings, and digitally imaged materials with reduced environmental impact. A Steelcase company, Designtex is headquartered in New York City with over 100 sales offices around the world. For more information visit: designtex.com

PRODUCT INFORMATION

Product Name

DNA Non-Vinyl Wallcovering

Product Description

Designtex DNA is a commercial grade, non-vinyl, digitally printed wallcovering. The material is a 17pt / 370gsm latex coated paper, reinforced with polyester fibers and printed with UV cured inks. DNA products are made on demand and sold as standard SKU-based products, or as a custom solution. This product falls under UN CPC Code: 32194.

Figure 1: DNA Non-Vinyl Wallcovering Product Image

Table 1: Technical Data

Technical Data	Value
Width (m)	1.27E+00
Thickness (m)	4.32E-04
Flammability rating	ASTM E 84 Adhered Class A

The reference product to represent DNA Non-Vinyl Wallcovering is CW11. The full list of products included in this EPD is listed in Table 2.

Table 2: List of products included in the EPD

Product Number	Name
CW11	DNA Non-Vinyl custom substrate
DW11	DNA Non-Vinyl digital substrate
6746	Air Wall
6639	Aksel Wall
6713	Beguiled By The Wild Walls
7941	Betwixt
6568	Birch Bark Stripe
3075	Bitmap

Product Number	Name
6581	Bocce
6582	Bocce Block
6583	Bocce Plaid
7948	Borealis
6682	City Grid
6727	Color Bars
8538	Fellowship
6750	Fragments

Product Number	Name
3121	Gouache A
3122	Gouache B
3123	Gouache C
3124	Gouache D
6681	Gradient
6627	Henrik Wall
6692	Hester
6730	Ikat Dot
6747	Ikat Spot
6668	Leafery
6693	Ludlow
6748	Orbit
3074	Output
6726	Paint Dot

Product Number	Name
8529	Parquet
3968	Plaster
3876	Rake
6749	Resurfacing
3024	Roll With It
6642	Shibori Flower Large
6649	Shibori Flower Small
6641	Shibori Stripe Wall
3168	Unwind
6667	Wallflowers
6677	Zip Code
6676	Zip Line
6675	Zipper

Application
DNA Non-Vinyl Wallcovering is used in indoor residential and commercial applications.

Manufacturing
Designtex-Portland is the final manufacturing facility for the DNA wallcovering product. Designtex-Portland handles printing, trimming and packaging for the product.

CONTENT DECLARATION
The total mass of 1 m^2 of wallcovering is 0.417 kg. Further details on the biogenic carbon content of the product and its packaging are provided Table 3 and Table 4.

Table 3: Product Content, per 1 m^2

Product content	Mass, kg	Post-consumer recycled material, mass-% of product	Biogenic material, mass-% of product	Biogenic material, kg C/m^2
Substrate	4.06E-01	0%	97%	8.06E-02
Ink	1.08E-02	0%	0%	0.00E+00
TOTAL	4.17E-01	0%	97%	8.06E-02

Table 4: Packaging details, per 1 m^2

Packaging materials	Mass, kg	Mass-% (vs the product)	Biogenic material, kg C/m^2
Kraft Paper	3.25E-03	1%	1.40E-03
Cardboard	4.19E-02	10%	1.80E-02
Plastic	9.09E-04	0.2%	0.00E+00
TOTAL	4.60E-02	11.2%	1.94E-02

1 kg biogenic carbon in the product/packaging is equivalent to the uptake of 44/12 kg of CO_2.

Mandatory Environmental Information
No substances required to be reported as hazardous per the EPA's Resource Conservation and Recovery Act (US EPA, 2023) were identified during the LCA associated with the production of this product.

LCA INFORMATION

Declaration of Methodological Framework

The LCA follows an attributional approach.

Declared unit

1 m^2 of wallcovering (0.417 kg)

Time representativeness

Calendar year 2024

Geographical scope

United States

Description of system boundaries

This EPD study is Cradle-to-Gate (A1-A3), with Options (modules C1-C4, and module D). The system boundaries studied as part of this life cycle assessment include the following stages which are shown in the table below:

- Production stage which includes the extraction, manufacture, and transportation of raw materials, and wallcovering production:
    - A1: Raw Material sourcing and processing as defined by primary supplier data
    - A2: Shipping from supplier to manufacturing site. Fuel use requirements estimated based on product weight and distance.
    - A3: Electricity inputs required for manufacturing products from raw materials. No other energy sources, nor water, are used during manufacturing. Packaging materials and manufacturing waste are included.
- End-of-Life – Modules C1-C4 which includes disposal of the product. Product is assumed to be 100% landfilled at end-of-life.

Each module includes provisions of all relevant materials, products, and energy. Potential impacts and waste are considered in the module in which they occur. Per the PCR, capital goods and infrastructure flows are assumed to not significantly affect LCA results or conclusions and thus are excluded from the analysis.

Process flow diagram

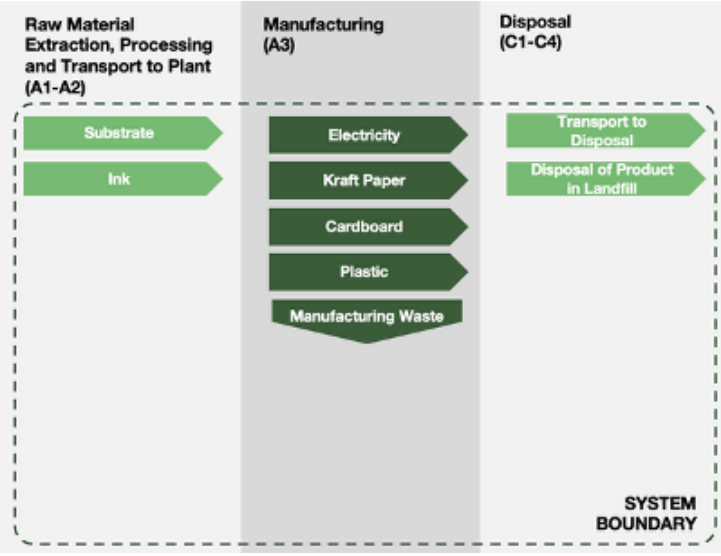

Figure 2: Process Flow Diagram

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

	Product stage			Distribution/ installation stage		Use stage							End-of-life stage				Beyond product life cycle
	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	ND	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	US, IT	US		-									US				US
Share of primary data	2%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-

The share of primary data is calculated based on GWP-GHG results. It is a simplified indicator for data quality that supports the use of more primary data, to increase the representativeness of and comparability between EPDs. Note that the indicator does not capture all relevant aspects of data quality and is not comparable across product categories.

Modules declared = “X”, Modules not declared = “ND”

Data quality assessment

The EPD covers DNA Non-Vinyl Wallcovering manufactured in 2024. Primary data was collected directly from the manufacturer and suppliers, while background data was sourced from Sphera Managed LCA Content 2025.1.

The quality of the data has been assessed according to EN 15804:2012+A2:2019, Annex E, and EN 15941. Using the semi-quantitative evaluation criteria for data quality (DQR) proposed by the European Commission in its Environmental Footprint Guide, the following results were obtained:

- Temporal representativeness (TiR): Very good
- Geographical representativeness (GeR): Good
- Technological representativeness (TeR): Very good

Overall, the data quality is rated as Very good. No datasets assessed were rated “very poor.” The assessed datasets together represent more than 80% of the results of each declared environmental impact indicator, ensuring that the EPD is based on sufficiently robust and reliable data.

Cut-Off Criteria

All known material inputs (based on total mass of the final product) were included within the scope of analysis. No known flows were deliberately excluded. Cut-off rules are consistent with the PCR.

Estimates and Assumptions

All estimates and assumptions are within the requirements of ISO 14040/44. Per the PCR, a distance of 80 km (~50 miles) by diesel-powered truck is used to represent the distribution of product at end-of-life to final disposal - landfill.

LCA software

Sphera LCA for Experts 10.9.0.31

Data Sources

Primary data for the paper raw material production were collected from the supplier. Primary data were collected by facility personnel at Designtex and used for all manufacturing processes. Secondary data for energy generation, and waste disposal were sourced from the Sphera Managed LCA Content Database 2025.1.

Table 5: Declaration of data sources and share of primary data

Process	Source type	Source	Reference year	Data category	Share of primary data, of GWP-GHG results for A1-A3[1]	Share on GWP-GHG results for A1-A3
Manufacturing of substrate	Collected data	Supplier	2024	Secondary data	0%	90%
Manufacturing of ink	Database	Sphera LCA for experts 2025.1	2024	Secondary data	0%	2%
Manufacturing of product	Collected data	EPD owner	2024	Secondary data	0%	6%
Generation of electricity used in manufacturing of product	Database	Sphera LCA for experts 2025.1	2024	Primary data	1%	1%
Transport of raw materials to manufacturing site	Database	Sphera LCA for experts 2025.1	2024	Primary data	1%	1%
Total share of primary data, of GWP-GHG results for A1-A3					**2%**	**100%**

[1]The share of primary data is calculated based on GWP-GHG results. It is a simplified indicator for data quality that supports the use of more primary data, to increase the representativeness of and comparability between EPDs. Note that the indicator does not capture all relevant aspects of data quality and is not comparable across product categories.

Allocation

General principles of allocation were based on ISO 14040/44. There are no products other than the products under study that are produced as part of the manufacturing processes. Since there are no co-products, no allocation based on co-products is required. To derive a per-unit value for manufacturing inputs and outputs such as electricity, packaging, and waste, allocation based on total production by mass was utilized.

Disposal

At the end of life, this product is assumed to be disposed per PCR requirements. 100% of the product is assumed to be landfilled at end-of-life. Waste classification is based on the Resource Conservation and Recovery Act. Disposal in municipal landfill or commercial incineration facilities is permissible and should be done in accordance with local, state, and federal regulations.

Reuse, Recycling and Energy Recovery

At the end of its life, the wallcovering is removed from the building manually (i.e., no equipment or energy required), transported via truck to a landfill, and disposed.

ENVIRONMENTAL PERFORMANCE

LCA Results

All results are given per functional unit of 1 m^2. The acronyms for the Impact Categories are provided in Table 6 through Table 8 of the Abbreviations section. Life cycle stages B1 through B7 are not declared (ND) and are excluded from the following tables for readability.

The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks. The results of the end-of-life stage (module C) should be considered when using the results of the production stage (modules A1-A3).

Mandatory impact category indicators according to EN 15804 + A2 (EF3.1)

Indicator	Unit	A1-A3	C1	C2	C3	C4	D
GWP-GHG	kg CO_2 eq.	3.07E+00	0.00E+00	3.38E-03	0.00E+00	3.33E-01	0.00E+00
GWP-total	kg CO_2 eq.	2.67E+00	0.00E+00	3.40E-03	0.00E+00	4.43E-01	0.00E+00
GWP-fossil	kg CO_2 eq.	2.79E+00	0.00E+00	3.38E-03	0.00E+00	1.17E-02	0.00E+00
GWP-biogenic	kg CO_2 eq.	-1.15E-01	0.00E+00	1.27E-05	0.00E+00	4.32E-01	0.00E+00
GWP-luluc	kg CO_2 eq.	1.56E-03	0.00E+00	1.79E-06	0.00E+00	7.52E-06	0.00E+00
ODP	kg CFC 11 eq.	1.44E-11	0.00E+00	7.79E-16	0.00E+00	2.93E-14	0.00E+00
AP	mol H^+ eq.	6.64E-03	0.00E+00	1.04E-05	0.00E+00	9.47E-04	0.00E+00
EP-freshwater	kg P eq.	6.05E-05	0.00E+00	6.13E-09	0.00E+00	8.07E-06	0.00E+00
EP-marine	kg N eq.	1.97E-03	0.00E+00	5.07E-06	0.00E+00	1.84E-04	0.00E+00
EP-terrestrial	mol N eq.	2.05E-02	0.00E+00	5.54E-05	0.00E+00	4.17E-03	0.00E+00
POCP	kg NMVOC eq.	5.56E-03	0.00E+00	1.00E-05	0.00E+00	4.61E-04	0.00E+00
ADP-minerals*	kg Sb eq.	1.26E-06	0.00E+00	5.56E-10	0.00E+00	1.35E-09	0.00E+00
ADP-fossil*	MJ	5.04E+01	0.00E+00	4.36E-02	0.00E+00	1.73E-01	0.00E+00
WDP*	m^3	4.43E-01	0.00E+00	4.77E-01	0.00E+00	2.45E-03	0.00E+00

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

Additional impact indicators

Indicator	Unit	A1-A3	C1	C2	C3	C4	D
PM	Disease incidence	8.49E-08	0.00E+00	1.16E-10	0.00E+00	7.14E-09	0.00E+00
IRP[1]	kBq U235 eq	1.37E-01	0.00E+00	1.25E-05	0.00E+00	1.75E-04	0.00E+00
ETP-fw[2]	CTUe	2.48E+01	0.00E+00	3.14E-02	0.00E+00	2.91E+00	0.00E+00
HTP-c[2]	CTUh	1.82E-09	0.00E+00	5.80E-13	0.00E+00	3.14E-11	0.00E+00
HTP-nc[2]	CTUh	1.97E-08	0.00E+00	1.59E-11	0.00E+00	5.96E-10	0.00E+00
SQP[2]	dimensionless	3.44E+01	0.00E+00	6.45E-03	0.00E+00	1.26E-02	0.00E+00

[1] 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 nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

[2] The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.

Resource use indicators

As per PCR 2019:14 v2.0.1. Annex 3, option B was used to calculate the primary energy use indicators.

Indicator	Unit	A1-A3	C1	C2	C3	C4	D
Resource Use indicators							
PERE	MJ	4.68E+01	0.00E+00	1.81E-03	0.00E+00	2.45E-02	0.00E+00
PERM	MJ	2.70E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	4.95E+01	0.00E+00	1.81E-03	0.00E+00	2.45E-02	0.00E+00
PENRE	MJ	5.03E+01	0.00E+00	4.36E-02	0.00E+00	1.73E-01	0.00E+00
PENRM	MJ	4.31E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	5.04E+01	0.00E+00	4.36E-02	0.00E+00	1.73E-01	0.00E+00
SM	kg	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
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RE	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m^3	1.12E-02	0.00E+00	1.96E-06	0.00E+00	6.43E-05	0.00E+00
Waste and Output Flow Indictors							
HWD	kg	4.17E-07	0.00E+00	7.22E-12	0.00E+00	4.13E-11	0.00E+00
NHWD	kg	1.29E+00	0.00E+00	4.46E-06	0.00E+00	3.98E-01	0.00E+00
RWD	kg	1.38E-03	0.00E+00	1.50E-07	0.00E+00	1.90E-06	0.00E+00
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MER	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE	MJ	2.97E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EET	MJ	1.23E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

ABBREVIATIONS

Table 6: LCIA Indicators, EN 15804+A2

Abbreviation	Parameter	Unit
GWP–total	Global Warming Potential - total	kg CO_2 eq
GWP–fossil	Global Warming Potential – fossil	kg CO_2 eq
GWP–biogenic	Global Warming Potential – biogenic	kg CO_2 eq
GWP-luluc	Global Warming Potential – land use and land use change	kg CO_2 eq
ODP	Ozone Depletion Potential	kg CFC 11 eq
AP	Acidification Potential	mole of H+ eq
EP-freshwater	Eutrophication Potential – freshwater	kg P eq
EP-marine	Eutrophication Potential – marine	kg N eq
EP-terrestrial	Eutrophication Potential - terrestrial	mole of N eq
POCP	Photochemical Ozone Creation Potential, human health	kg NMVOC eq
ADP-minerals	Resource use – minerals and metals	kg Sb eq
ADP-fossil	Resource use – fossils	MJ
WDP	Water use	m^3 world equiv

Table 7: Additional impact indicators

Abbreviation	Parameter	Unit
PM	Potential incidence of disease due to PM emissions	Disease incidence
IRP	Potential Human exposure efficiency relative to U235	kBq U235 eq
ETP-fw	Potential Comparative Toxic Unit for ecosystems	CTUe
HTP-c	Potential Comparative Toxic Unit for humans	CTUh
HTP-nc	Potential Comparative Toxic Unit for humans	CTUh
SQP	Potential Soil quality index	dimensionless

Table 8: Resource Use, Waste, and Output Flow Indicators

Abbreviation	Parameter	Unit
Resource Use Parameters		
PERE	Use of renewable primary energy excluding renewable primary energy resources used as raw materials	MJ, net calorific value
PERM	Use of renewable primary energy resources used as raw materials	MJ, net calorific value
PERT	Total use of renewable primary energy resources used as raw materials	MJ, net calorific value
PENRE	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	MJ, net calorific value
PENRM	Use of non-renewable primary energy resources used as raw materials	MJ, net calorific value
PENRT	Total use of non-renewable primary energy resources	MJ, net calorific value
SM	Use of secondary materials	kg
RSF	Use of renewable secondary fuels	MJ, net calorific value
NRSF	Use of non-renewable secondary fuels	MJ, net calorific value
RE	Recovered energy	MJ, net calorific value
FW	Net use of fresh water	m^3
Waste Parameters and Output Flows		
HWD	Hazardous waste disposed	kg
NHWD	Non-hazardous waste disposed	kg
RWD	Radioactive waste disposed	kg
CRU	Components for reuse	kg
MR	Materials for recycling	kg
MER	Materials for energy recovery	kg
EEE	Exported electricity energy from the product system	MJ
EET	Exported thermal energy from the product system	MJ

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VERSION HISTORY

Original Version of the EPD, 2025-11-07

Revision 1, 2025-11-24

- Update to cover image and product image
- Addition of 3 product names: Betwixt, Borealis, Parquet
- Update of UN CPC code

EPD
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