

Result summary

Vinyl Wallcovering with Recycled Content 490G/ M2

Vescom BV

Calculation number:	EPD-NIBE-20221215-32938
Generation on:	30-03-2023
Issue date:	30-03-2023
Valid until:	30-03-2028
Status:	verified

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1 General information

1.1 PRODUCT

Vinyl Wallcovering with Recycled Content 490G/M2

1.2 VALIDITY

Issue date 30-03-2023

Valid until: 30-03-2028

1.3 OWNER OF THE DECLARATION



Manufacturer: Vescom BV

Address: Sint Jozefstraat 20, 5753 AV Deurne

E-mail: info@vescom.com:

Website: www.vescom.com

Production location: Vescom BV

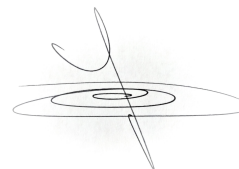
Address production location: Sint Jozefstraat 20, 5753 AV Deurne

1.4 VERIFICATION OF THE DECLARATION

CEN standard EN 15804 serves as the core PCR. In compliance with ISO 14040:2006 and 14044:2006.

Independent verification of the declaration according to EN ISO 14025:2011-10.

Internal External



Anne Kees Jeeninga, Advieslab

1.5 THIS DECLARATION IS BASED ON THE PRODUCT CATEGORY RULES

Horizontal PCR INSIDE/INSIDE v1.2 2018-12-10

1.6 FUNCTIONAL / DECLARED UNIT

m2 Wallcovering

Declared unit: square meter (m2)

Production (A1-A3) up to- and including end of life phase (C2-D) of one square meter of vinyl wallcovering. Including delivery (A4, 1 km), mounting on the wall (A5), and maintenance during the product life cycle of 25 years (B1-B7).

1.7 CONVERSION FACTORS

Description	Value	Unit
Declared unit	1	m2
Weight per declared unit	0.507	kg

1 General information

Description	Value	Unit
Conversion factor to 1 kg	1.972387	m2

1.8 SCOPE OF DECLARATION AND SYSTEM BOUNDARIES

This is a Cradle to gate with options, modules C1-C4 and module D LCA. The life cycle stages included are as shown below:

(X = module included, ND = module not declared)

A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	X	X	X	ND	ND	ND	ND	X	X	X	X	X

The modules of the EN15804 contain the following:

Module A1 = Raw material supply	Module B5 = Refurbishment
Module A2 = Transport	Module B6 = Operational energy use
Module A3 = Manufacturing	Module B7 = Operational water use
Module A4 = Transport	Module C1 = De-construction / Demolition

Module A5 = Construction - Installation process	Module C2 = Transport
Module B1 = Use	Module C3 = Waste Processing
Module B2 = Maintenance	Module C4 = Disposal
Module B3 = Repair	Module D = Benefits and loads beyond the product system boundaries
Module B4 = Replacement	

1.9 COMPARABILITY

In principle, a comparison or assessment of the environmental impacts of different products is only possible if they have been prepared in accordance with EN 15804. For the evaluation of the comparability, the following aspects have to be considered in particular: PCR used, functional or declared unit, geographical reference, the definition of the system boundary, declared modules, data selection (primary or secondary data, background database, data quality), scenarios used for use and disposal phases, and the life cycle inventory (data collection, calculation methods, allocations, validity period). PCRs and general program instructions of different EPDs programs may differ. Comparability needs to be evaluated. For further guidance, see EN 15804+A2 (5.3 Comparability of EPD for construction products) and ISO 14025 (6.7.2 Requirements for comparability).

2 Product

2.1 PRODUCT DESCRIPTION

Vescom decorative vinyl wallcovering consists of a vinyl topcoat, printed with water-based inks on a cotton backing. It is mainly used as a decorative wallcovering, mounted on interior walls with the use of Vescom adhesive.

The main component of Vescom vinyl wallcovering 490 gr/m2 is PVC. This

PVC film is laminated to a cotton substrate. The wallcovering is mounted on a wall with Vescom adhesive.

Weight / m2 = 490 gr

Width = 1300 mm per roll

Length per roll =

Thickness = 0.7 mm

Performance demands (Certificates, quality marks, norms, etc.)

· EN 15102

2.2 DESCRIPTION PRODUCTION PROCESS

The water based inks are applied on the printing machines. After that, the

cotton backing is laminated and the pattern is embossed on the calender

machines. Last step is inspecting and packing on the inspection tables.

Energy consumption is monitored on a monthly basis. No allocation takes place. Waste during the production process is based on actual quantities and monitored on a weekly base as percentage of the total output. This is included in the LCA calculation.

2.3 CONSTRUCTION DESCRIPTION

The wallcovering is applied manually with glue. The glue is taken into account for this LCA. It's estimated that the environmental impacts of other materials during this lifecycle phase is less than the cut-off criteria (<1%), so they are excluded from the calculation.

The wallcovering should be applied in sequence from one production lot. First make a strip placement plan. Where several rolls are to be applied, start with the highest roll number. Cut the strips at wall height + 4cm; this is to allow for trimming at ceiling and skirting level. Number the strips. Only use black graphite pencil for this purpose. Follow the directional hanging instructions and other instructions supplied in the roll. Place the plumb line (black graphite pencil) in such a manner that the material overlaps the corner / inside angle by 2 cm. Apply adhesive to the substrate using a short-haired synthetic roller in a width of strip + 20 cm.

3 Results

3.1 ENVIRONMENTAL IMPACT INDICATORS PER SQUARE METER

CORE ENVIRONMENTAL IMPACT INDICATORS EN15804+A1

Abbreviation	Unit	A1	A2	A3	A4	A5	B1	B2	B3	C1	C2	C3	C4	D	Total
ADPE	Kg Sb	2.87E-5	6.91E-7	6.15E-6	1.81E-9	3.67E-6	0.00E+0	1.74E-5	0.00E+0	0.00E+0	2.43E-7	6.42E-6	5.74E-9	2.26E-6	6.55E-5
ADPF	MJ	2.45E+1	6.47E-1	4.07E+0	1.06E-3	3.23E+0	0.00E+0	2.26E+0	0.00E+0	0.00E+0	1.42E-1	3.11E+0	1.24E-2	-4.58E+0	3.34E+1
AP	Kg SO2 Equiv.	6.65E-3	2.75E-4	1.24E-3	3.11E-7	1.12E-3	0.00E+0	1.24E-3	0.00E+0	0.00E+0	4.18E-5	1.44E-3	3.59E-6	1.40E-4	1.21E-2
ODP	Kg CFC-11 Equiv.	5.05E-7	7.97E-9	7.43E-8	1.25E-11	4.67E-8	0.00E+0	1.60E-8	0.00E+0	0.00E+0	1.69E-9	1.64E-7	1.33E-10	5.44E-9	8.22E-7
GWP	Kg CO2 Equiv.	1.40E+0	4.26E-2	3.37E-1	7.07E-5	6.28E-1	0.00E+0	2.32E-1	0.00E+0	0.00E+0	9.50E-3	1.01E+0	3.69E-3	-2.95E-1	3.36E+0
EP	Kg PO43- Equiv.	4.74E-3	4.26E-5	6.19E-4	6.11E-8	3.39E-4	0.00E+0	1.63E-4	0.00E+0	0.00E+0	8.21E-6	1.89E-4	1.23E-6	9.40E-6	6.11E-3
POCP	Kg Ethene Equiv.	7.13E-4	3.03E-5	1.35E-4	4.27E-8	1.34E-4	0.00E+0	8.37E-5	0.00E+0	0.00E+0	5.73E-6	1.09E-4	1.01E-6	-3.20E-6	1.21E-3

ADPE=Depletion of abiotic resources-elements | **ADPF**=abiotic depletion of fossil resources | **AP**=Acidification of soil and water | **ODP**=Ozone layer depletion | **GWP**=Global warming | **EP**=Eutrophication | **POCP**=Photochemical oxidants creation

3.2 INDICATORS DESCRIBING RESOURCE USE AND ENVIRONMENTAL INFORMATION BASED ON LIFE CYCLE INVENTORY (LCI)

PARAMETERS DESCRIBING RESOURCE USE

Abbreviation	Unit	A1	A2	A3	A4	A5	B1	B2	B3	C1	C2	C3	C4	D	Total
PERE	MJ	4.14E+0	7.93E-3	2.32E+0	1.35E-5	4.26E-1	0.00E+0	3.13E-1	0.00E+0	0.00E+0	1.81E-3	4.05E-1	2.19E-4	-7.27E-2	7.54E+0
PERM	MJ	0.00E+0	0.00E+0	3.35E-1	0.00E+0	1.68E-2	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	3.52E-1
PERT	MJ	4.14E+0	7.93E-3	2.65E+0	1.35E-5	4.42E-1	0.00E+0	3.13E-1	0.00E+0	0.00E+0	1.81E-3	4.05E-1	2.19E-4	-7.27E-2	7.89E+0
PENRE	MJ	2.08E+1	7.00E-1	3.98E+0	1.14E-3	3.33E+0	0.00E+0	2.62E+0	0.00E+0	0.00E+0	1.53E-1	3.90E+0	1.35E-2	-5.71E+0	2.98E+1

PERE=renewable primary energy ex. raw materials | **PERM**=renewable primary energy used as raw materials | **PERT**=renewable primary energy total | **PENRE**=non-renewable primary energy ex. raw materials | **PENRM**=non-renewable primary energy used as raw materials | **PENRT**=non-renewable primary energy total | **SM**=use of secondary material | **RSF**=use of renewable secondary fuels | **NRSF**=use of non-renewable secondary fuels | **FW**=use of net fresh water

3 Results

Abbreviation	Unit	A1	A2	A3	A4	A5	B1	B2	B3	C1	C2	C3	C4	D	Total
PENRM	MJ	1.10E+1	0.00E+0	1.09E+0	0.00E+0	6.10E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	9.60E-1	1.37E+1
PENRT	MJ	3.18E+1	7.00E-1	5.07E+0	1.14E-3	3.94E+0	0.00E+0	2.62E+0	0.00E+0	0.00E+0	1.53E-1	3.90E+0	1.35E-2	-4.75E+0	4.35E+1
SM	Kg	5.80E-2	0.00E+0	5.80E-3	0.00E+0	3.19E-3	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	6.70E-2
RSF	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
NRSF	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
FW	M3	2.45E-1	7.12E-5	2.66E-2	1.31E-7	1.57E-2	0.00E+0	2.64E-3	0.00E+0	0.00E+0	1.76E-5	7.21E-3	1.32E-5	2.41E-3	3.00E-1

PERE=renewable primary energy ex. raw materials | **PERM**=renewable primary energy used as raw materials | **PERT**=renewable primary energy total | **PENRE**=non-renewable primary energy ex. raw materials | **PENRM**=non-renewable primary energy used as raw materials | **PENRT**=non-renewable primary energy total | **SM**=use of secondary material | **RSF**=use of renewable secondary fuels | **NRSF**=use of non-renewable secondary fuels | **FW**=use of net fresh water

OTHER ENVIRONMENTAL INFORMATION DESCRIBING WASTE CATEGORIES

Abbreviation	Unit	A1	A2	A3	A4	A5	B1	B2	B3	C1	C2	C3	C4	D	Total
HWD	Kg	2.60E-5	1.50E-6	1.37E-5	2.73E-9	4.29E-6	0.00E+0	4.54E-6	0.00E+0	0.00E+0	3.66E-7	6.01E-6	1.93E-8	-6.64E-6	4.98E-5
NHWD	Kg	1.33E-1	5.21E-2	4.43E-2	6.82E-5	5.13E-2	0.00E+0	4.45E-2	0.00E+0	0.00E+0	9.16E-3	6.01E-2	5.08E-2	7.06E-3	4.53E-1
RWD	Kg	7.20E-5	4.51E-6	1.24E-5	7.06E-9	9.48E-6	0.00E+0	6.92E-6	0.00E+0	0.00E+0	9.49E-7	1.32E-5	7.55E-8	3.27E-6	1.23E-4

HWD=hazardous waste disposed | **NHWD**=non hazardous waste disposed | **RWD**=radioactive waste disposed

ENVIRONMENTAL INFORMATION DESCRIBING OUTPUT FLOWS

Abbreviation	Unit	A1	A2	A3	A4	A5	B1	B2	B3	C1	C2	C3	C4	D	Total
CRU	Kg	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
MFR	Kg	0.00E+0	0.00E+0	1.31E-2	0.00E+0	1.89E-2	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	2.54E-2	0.00E+0	0.00E+0	5.73E-2
MER	Kg	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
EE	MJ	0.00E+0	0.00E+0	3.71E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	4.79E+0	5.16E+0
EET	MJ	0.00E+0	0.00E+0	2.35E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	3.03E+0	3.27E+0
EEE	MJ	0.00E+0	0.00E+0	1.36E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.76E+0	1.90E+0

CRU=Components for re-use | **MFR**=Materials for recycling | **MER**=Materials for energy recovery | **EE**=Exported energy | **EET**=Exported Energy Thermic | **EEE**=Exported Energy Electric

3 Results

3.3 INFORMATION ON BIOGENIC CARBON CONTENT PER SQUARE METER

BIOGENIC CARBON CONTENT

The following Information describes the biogenic carbon content in (the main parts of) the product at the factory gate per square meter:

Biogenic carbon content	Amount	Unit
Biogenic carbon content in the product	0	kg C
Biogenic carbon content in accompanying packaging	0	kg C

3 Results

3.4 ENVIRONMENTAL COST INDICATOR I/I PER SQUARE METER

Using the environmental cost indicator (ECI) method, which is presented in the NMD Determination Method (2020), the results are aggregated to the single-point score. The ECI is a relevant valuation method, especially in the Dutch construction sector. In the Netherlands, it is a prerequisite for public tenders. The aim of the indicator is to show the shadow price for environmental impacts of a product or project. The application of single-point scores is an additional assessment tool for eco-balance results. However, it must be pointed out that weightings are always based on a value maintenance and not on a scientific basis (EN 14040). The ECI results are shown in the following table.

Module EN15804	ECI I/I	Share in total (%)
A1 Raw Materials Supply	€ 0.14	51,5 %
A2 Transport	€ 0.00	1,3 %
A3 Manufacturing	€ 0.03	10,1 %
A4 Transport from the gate to the site	€ 0.00	0,0 %
A5 Construction - Installation process	€ 0.04	14,3 %
B1 Use	€ 0.00	0,0 %
B2 Maintenance	€ 0.02	6,6 %
B3 Repair	€ 0.00	0,0 %
C1 De-construction / demolition	€ 0.00	0,0 %
C2 Transport	€ 0.00	0,3 %
C3 Waste processing	€ 0.06	21,0 %
C4 Disposal	€ 0.00	0,1 %
D Benefits and loads beyond the product system boundary	€ -0.01	-5,2 %
ECI I/I per functional unit	€ 0.28	

4 Contact information

Publisher	Operator	Owner of declaration
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