

ENVIRONMENTAL PRODUCT DECLARATION

According to ISO 14025 and EN 15804

eurocol



LIQUIDDESIGN PER MM

COMPANY INFORMATION / DECLARATION OWNER

Manufacturer: Forbo Eurocol Nederland B.V.
Production Location: Forbo Eurocol
Address: Industrieweg 1-2
1521 NA Wormerveer
E-mail: rob.eijgelsheim@forbo.com
Website: www.forbo.com

EPD INFORMATION

Calculation number: EPD-NIBE-20190128-3817
Date of issue:
End of validity:
Version NIBE's EPD Application: 1.0
Version database: v2.76 (2019-01-08)
PCR: SBK bepalingmethode v2.0 incl.
Wijzigingsblad overgang naar
Ecolvent v3.3 of 1th June 2017

VERIFICATION OF THE DECLARATION

CEN standard EN 15804:2012 serves as the core PCR
Independent verification of the declaration. according to EN ISO 14025:2010. ☐ Internal ☐ External

DECLARED UNIT

m²

One square meter of LiquidDesign with a thickness of 1 mm. Included are production (A1-A3) of the product, assembly in the project (A4 and A5), necessary maintenance (B2) and repairs (B3). Also including the end-of-life scenario (C1-C4) and Module D. The modules B1, B3, B5, B6 and B7 are not applicable and are set equal to 0. As prescribed in the Horizontal PCR of Inside/Inside module A4 is declared for 1 km and modules B2 and B3 are declared for 1 year.

Calculation is made in accordance with the Horizontal PCR of Inside version 1.2 and the Product PCR Floorcovering version 1.0.

SCOPE OF DECLARATION

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	MND	MND	MND	MND	X	X	X	X	X

(X = included, MND = module not declared)

PRODUCT DESCRIPTION

LiquidDesign is a cast linoleum based on natural raw materials. The product is made up of resins, linseed oil, wood- and cork flour, limestone, cork and natural pigments, which are applied seamlessly in the work.

Range of application:

- Class 23 domestic heavy (minimum thickness 2 mm)
- Class 34 commercial very heavy (minimum thickness 2 mm)
- Class 43 industrial heavy (minimum thickness 2.5 mm)

Characteristics:

- Mass per Functional Unit: 0.9kg per m² of 1 mm thickness
- Volumetric mass density: 0.9 kg/dm³
- Layer thickness: 2 - 6 mm

Technical data:

- Electrical behaviour: EN 1815. <2 kV
- Thermal conductivity: EN ISO 12524. 0.15 W/m.k. Suitable for underfloor heating
- CE number: EN 13813:2002
- LiquidDesign: contains recycled content
- Reaction to fire: EN 13501-1. Bfl-S1. Class 1 when tested in accordance with ASTM E-648 Critical Radiant Flux. Meets 450 or less, when tested in accordance with ASTM 662/ NFPA 258 Smoke Density.
- Slip resistance: DIN 51130. R9 standard/ R11 upon request EN. 13893. DS: ≥ 0.30. Meets or exceeds the industry recommendation of >0.5 for flat surfaces when tested in accordance with ASTM D-2047.

Maintenance:

DESCRIPTION OF THE MANUFACTURING PROCESS

At quartzline the ingredients are mixed in a tub for 5 consecutive hours, containing 3500 kg of material, for which the energy consumption is 45kWh (power is 9kW). The tub is tapped empty, in case some of the product stays behind it will be mixed into the next batch. After the mixing the material is packed in buckets of 20 l.

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Dry cleaning with a vacuum cleaner or a dustmob twice a week. Wet cleaning with a singledisc machine once a month using an adequate maintenance pad without detergent or neutral cleaner.

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RESULTS (SOLID PART)

Impact category	Unit	A1	A2	A3	A4	A5	B1	B2	B3	C2	C1+C3+C4	D	Total
ADPE	Kg Sb	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
ADPF	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
AP	Kg SO2 Equiv.	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
ODP	Kg CFC-11 Equiv.	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
GWP	Kg CO2 Equiv.	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
EP	Kg PO43- Equiv.	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
POCP	Kg Ethene Equiv.	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
Parameter	Unit	A1	A2	A3	A4	A5	B1	B2	B3	C2	C1+C3+C4	D	Total
PERE	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
PERM	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
PERT	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
PENRE	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
PENRM	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
PENRT	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
SM	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
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
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
FW	M3	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
HWD	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
NHWD	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
RWD	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
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
MFR	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
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
EE	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
EET	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
EEE	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
SP	s€	s€ 0,00	s€ 0,00	s€ 0,00	s€ 0,00	s€ 0,00	s€ 0,00	s€ 0,00	s€ 0,00	s€ 0,00	s€ 0,00	s€ 0,00	s€ 0,00

Impact categories: 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

Parameters: 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 | HWD=hazardous waste disposed | NHWD=non hazardous waste disposed | RWD=radioactive waste disposed | 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

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RESULTS (SCALABLE PART)

Impact category	Unit	A1	A2	A3	A4	A5	B1	B2	B3	C2	C1+C3+C4	D	Total
ADPE	Kg Sb	3.30E-6	2.07E-7	7.04E-7	3.54E-10	2.06E-7	0.00E+0	1.10E-5	0.00E+0	5.04E-8	1.63E-8	-9.31E-8	1.54E-5
ADPF	MJ	7.70E+0	1.12E+0	3.05E+0	1.92E-3	-3.38E-1	0.00E+0	5.36E+1	0.00E+0	2.74E-1	1.12E-1	-6.11E+0	5.94E+1
AP	Kg SO2 Equiv.	6.59E-3	3.23E-4	9.09E-4	5.52E-7	3.34E-4	0.00E+0	9.31E-3	0.00E+0	7.87E-5	1.76E-4	-4.75E-4	1.72E-2
ODP	Kg CFC-11 Equiv.	8.51E-8	1.36E-8	1.25E-8	2.33E-11	1.15E-9	0.00E+0	2.73E-7	0.00E+0	3.33E-9	1.19E-9	-3.33E-8	3.56E-7
GWP	Kg CO2 Equiv.	3.62E+0	7.33E-2	2.98E-1	1.25E-4	2.26E-1	0.00E+0	3.91E+0	0.00E+0	1.79E-2	1.71E-2	-3.64E-1	7.80E+0
EP	Kg PO43- Equiv.	7.81E-3	6.35E-5	4.58E-4	1.09E-7	4.09E-4	0.00E+0	1.62E-3	0.00E+0	1.55E-5	4.70E-5	-8.56E-5	1.03E-2
POCP	Kg Ethene Equiv.	2.17E-3	4.41E-5	1.87E-4	7.55E-8	1.11E-4	0.00E+0	7.39E-4	0.00E+0	1.08E-5	3.51E-5	-6.14E-5	3.24E-3
Parameter	Unit	A1	A2	A3	A4	A5	B1	B2	B3	C2	C1+C3+C4	D	Total
PERE	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
PERM	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
PERT	MJ	4.96E+1	1.56E-2	2.61E+0	2.66E-5	2.46E+0	0.00E+0	6.21E+0	0.00E+0	3.80E-3	3.62E-3	-1.04E+0	5.98E+1
PENRE	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
PENRM	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
PENRT	MJ	8.04E+0	1.21E+0	3.34E+0	2.06E-3	-3.10E-1	0.00E+0	5.24E+1	0.00E+0	2.94E-1	1.16E-1	-6.06E+0	5.90E+1
SM	Kg	1.80E-1	0.00E+0	9.00E-3	0.00E+0	9.45E-3	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.98E-1
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
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
FW	M3	1.47E-1	2.18E-4	7.92E-3	3.73E-7	7.69E-3	0.00E+0	4.80E-2	0.00E+0	5.32E-5	8.77E-4	-9.12E-4	2.10E-1
HWD	Kg	4.49E-5	8.44E-6	3.20E-5	1.44E-8	1.37E-6	0.00E+0	2.26E-4	0.00E+0	2.06E-6	6.87E-7	-2.24E-5	2.93E-4
NHWD	Kg	1.41E-1	6.88E-2	2.74E-2	1.18E-4	2.33E-2	0.00E+0	5.08E-1	0.00E+0	1.68E-2	1.45E-1	-1.10E-2	9.19E-1
RWD	Kg	3.56E-5	7.76E-6	8.11E-6	1.33E-8	1.20E-6	0.00E+0	1.18E-4	0.00E+0	1.89E-6	4.73E-7	-1.12E-5	1.62E-4
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
MFR	Kg	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.67E-3	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.67E-3
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
EE	MJ	0.00E+0	0.00E+0	1.86E-1	0.00E+0	5.68E-1	0.00E+0	1.24E+0	0.00E+0	0.00E+0	0.00E+0	3.71E+0	5.71E+0
EET	MJ	0.00E+0	0.00E+0	9.82E-2	0.00E+0	3.01E-1	0.00E+0	6.57E-1	0.00E+0	0.00E+0	0.00E+0	1.96E+0	3.02E+0
EEE	MJ	0.00E+0	0.00E+0	8.73E-2	0.00E+0	2.67E-1	0.00E+0	5.84E-1	0.00E+0	0.00E+0	0.00E+0	1.75E+0	2.69E+0
SP	s€	s€ 0,28	s€ 0,01	s€ 0,02	s€ 0,00	s€ 0,02	s€ 0,00	s€ 0,25	s€ 0,00	s€ 0,00	s€ 0,00	s€ -0,02	s€ 0,56

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ADDITIONAL INFORMATION

Allocation

N.A.

Scaling

Parameter	Value
Scaling type	Linear
Description dimension	thickness
Dimension	1.000
Scalable dimension	1.000
Unit dimension	mm