

Result summary

# 305 BetonDesign

Forbo Eurocol Nederland B.V.

Calculation number:

EPD-NIBE-20210818-21102

Generation on:

01-09-2022

Issue date:

01-09-2022

Valid until:

01-09-2027

Status:

verified



## 1 305 BetonDesign

### 1.1 COMPANY INFORMATION / DECLARATION OWNER

**Manufacturer:** Forbo Eurocol Nederland B.V.

**Production Location:** Eurocol Nederland B.V

**Address:** Industrieweg 1, 1521NA Wormerveer

**E-mail:** info.eurocol@forbo.com

**Website:** <https://www.forbo.com/eurocol/nl-nl/>

### 1.2 EPD INFORMATION

**Calculation number:** EPD-NIBE-20210818-21102

**Date of issue:** 01-09-2022

**End of validity:** 01-09-2027

**Version NIBE's EPD Application:** v2.0

**Version database:** v3.11 (2022-07-18)

**PCR:** NMD Determination method Environmental performance Construction works v1.1  
March 2022

### 1.3 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

Deze LCA werd door SGS Search gereviewd op basis van de NMD Bepalingsmethode versie 1.0 en goed bevonden op 31 augustus 2022.

De methode, inventarisatie en het rapport voldoen aan de eisen van de NMD Bepalingsmethode versie 1.0 (inclusief de drie wijzigingsbladen) en de onderliggende normen: ISO 14040, ISO 14044 en EN 15804.



Third party verifier: Martijn van Hovell, SGS Search / Intron

### 1.4 DECLARED UNIT

#### Eén kilogram 305 BetonDesign

De productie (A1-A3) van één kilogram 305 BetonDesign, inclusief verpakkingsmateriaal transport naar de bouwplaats (A4) en verwerking (A5). Tevens is de eindelevensduur (C2-D) beschouwd. Fase B1-B3 en C1 zijn beschouwd maar niet van toepassing, derhalve zijn er 0 waarden weergegeven. Het verwijderen van het materiaal toegeschreven aan het materiaal waarop de 305 BetonDesign gebruikt wordt.

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## 1.5 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)

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### 1.6 PRODUCT DESCRIPTION

De 305 BetonDesign is een gebruiksklare pasteuse afwerklaag voor het realiseren van een decoratieve betonuitstraling op o.a. vloeren en wanden.

#### Eigenschappen:

Begaanbaarheid: Eerste laag na 3 uur en de tweede laag na 6 uur.

Brandbaarheid: Niet brandbaar. Soortelijk gewicht 1,65 – 1,9 kg/l. (afhankelijk van kleur).

Verbruik: 400 – 500 g/m<sup>2</sup> per laag.

Vorstbestendigheid: Nee.

#### Toepassing:

Voor het realiseren van een decoratieve betonuitstraling op vloeren en wanden in een laagdikte van ca. 1 mm.

**Verpakking:** Emmer à 7 kg

**EAN-code:** 8710345 003056

### 1.7 DESCRIPTION OF THE MANUFACTURING PROCESS

Vloeibare silo componenten worden via pompen gedoseerd. De droge silo grondstoffen worden gedoseerd in een hopper en vervolgens in de onderstaande menger gemengd, waarna het eindproduct in gerecyclede emmers wordt afgevuld. Tijdens (en na) productie vinden er geen emissies plaats.

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## 1.8 RESULTS

Environmental effects	Unit	A1	A2	A3	A4	A5	B1	B2	B3	C1	C2	C3	C4	D	Total
ADPE	Kg Sb	4.46E-5	1.24E-6	1.33E-6	5.30E-7	2.49E-6	0.00E+0	0.00E+0	0.00E+0	0.00E+0	2.64E-7	0.00E+0	8.73E-8	-3.16E-8	5.06E-5
ADPF	Kg Sb	5.20E-3	6.01E-4	1.72E-3	1.53E-4	4.22E-4	0.00E+0	0.00E+0	0.00E+0	0.00E+0	7.60E-5	0.00E+0	9.30E-5	-3.98E-4	7.86E-3
GWP	Kg CO2 Equiv.	7.82E-1	8.93E-2	1.51E-1	2.07E-2	1.34E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.03E-2	0.00E+0	7.90E-2	-4.15E-2	1.22E+0
ODP	Kg CFC-11 Equiv.	1.16E-7	1.39E-8	8.92E-9	3.68E-9	9.62E-9	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.83E-9	0.00E+0	2.02E-9	-4.63E-9	1.51E-7
POCP	Kg Ethene Equiv.	4.71E-4	8.05E-5	7.73E-5	1.25E-5	3.60E-5	0.00E+0	0.00E+0	0.00E+0	0.00E+0	6.23E-6	0.00E+0	1.90E-5	-7.76E-6	6.95E-4
AP	Kg SO2 Equiv.	6.28E-3	1.16E-3	4.46E-4	9.12E-5	4.30E-4	0.00E+0	0.00E+0	0.00E+0	0.00E+0	4.54E-5	0.00E+0	5.29E-5	-3.27E-5	8.48E-3
EP	Kg PO43- Equiv.	4.79E-4	1.53E-4	5.47E-5	1.79E-5	4.05E-5	0.00E+0	0.00E+0	0.00E+0	0.00E+0	8.93E-6	0.00E+0	1.26E-5	-4.48E-6	7.62E-4
HTP	kg 1.4 DB	4.78E-1	4.26E-2	2.62E-2	8.74E-3	3.37E-2	0.00E+0	0.00E+0	0.00E+0	0.00E+0	4.35E-3	0.00E+0	4.61E-3	-2.44E-3	5.96E-1
FAETP	kg 1.4 DB	4.13E-2	8.44E-4	1.10E-3	2.55E-4	2.59E-3	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.27E-4	0.00E+0	1.81E-3	-2.86E-5	4.80E-2
MAETP	kg 1.4 DB	4.93E+1	3.42E+0	2.33E+0	9.17E-1	3.81E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	4.57E-1	0.00E+0	2.47E+0	-1.15E-1	6.26E+1
TETP	kg 1.4 DB	1.97E-3	1.59E-4	3.36E-4	3.09E-5	1.40E-4	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.54E-5	0.00E+0	1.63E-5	-8.20E-6	2.66E-3
AP	mol H+ eqv.	7.47E-3	1.48E-3	5.40E-4	1.21E-4	5.20E-4	0.00E+0	0.00E+0	0.00E+0	0.00E+0	6.04E-5	0.00E+0	6.97E-5	-4.16E-5	1.02E-2
GWP-total	kg CO2 eqv.	7.93E-1	9.03E-2	1.52E-1	2.09E-2	1.36E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.04E-2	0.00E+0	9.22E-2	-4.11E-2	1.25E+0
GWP-b	kg CO2 eqv.	-1.33E-3	1.55E-4	-2.27E-3	9.66E-6	3.97E-4	0.00E+0	0.00E+0	0.00E+0	0.00E+0	4.81E-6	0.00E+0	6.71E-5	9.98E-4	-1.96E-3
GWP-f	kg CO2 eqv.	7.92E-1	9.01E-2	1.54E-1	2.09E-2	1.35E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.04E-2	0.00E+0	9.22E-2	-4.21E-2	1.25E+0
GWP-luluc	kg CO2 eqv.	2.48E-3	6.53E-5	1.22E-4	7.67E-6	1.40E-4	0.00E+0	0.00E+0	0.00E+0	0.00E+0	3.82E-6	0.00E+0	3.73E-6	-2.62E-6	2.82E-3
ETP-fw	CTUe	3.15E+1	1.10E+0	1.43E+0	2.81E-1	2.70E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.40E-1	0.00E+0	1.59E-1	-5.86E-2	3.73E+1

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PM	disease incidence	4.76E-8	5.75E-9	3.36E-9	1.88E-9	3.30E-9	0.00E+0	0.00E+0	0.00E+0	0.00E+0	9.37E-10	0.00E+0	1.33E-9	-1.71E-10	6.40E-8
EP-m	kg N eqv.	7.29E-4	4.05E-4	8.99E-5	4.28E-5	7.46E-5	0.00E+0	0.00E+0	0.00E+0	0.00E+0	2.13E-5	0.00E+0	2.35E-5	-1.14E-5	1.37E-3
EP-fw	kg P eqv.	3.72E-5	1.56E-6	5.69E-6	2.11E-7	2.48E-6	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.05E-7	0.00E+0	1.41E-7	-8.72E-8	4.73E-5
EP-T	mol N eqv.	1.01E-2	4.50E-3	1.05E-3	4.71E-4	9.30E-4	0.00E+0	0.00E+0	0.00E+0	0.00E+0	2.35E-4	0.00E+0	2.60E-4	-1.27E-4	1.74E-2
HTP-c	CTUh	9.34E-10	5.74E-11	5.87E-11	9.13E-12	6.84E-11	0.00E+0	0.00E+0	0.00E+0	0.00E+0	4.55E-12	0.00E+0	1.01E-11	-3.21E-12	1.14E-9
HTP-nc	CTUh	1.92E-8	1.13E-9	1.14E-9	3.08E-10	1.41E-9	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.53E-10	0.00E+0	1.36E-10	-5.29E-11	2.35E-8
IR	kBq U235 eqv.	2.72E-2	5.91E-3	6.50E-3	1.32E-3	2.34E-3	0.00E+0	0.00E+0	0.00E+0	0.00E+0	6.58E-4	0.00E+0	7.57E-4	-2.70E-4	4.44E-2
SQP	Pt	6.78E+0	7.26E-1	6.19E-1	2.74E-1	4.68E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.36E-1	0.00E+0	4.58E-1	-1.07E-1	9.36E+0
ODP	kg CFC 11 eqv.	1.20E-7	1.70E-8	8.72E-9	4.62E-9	1.01E-8	0.00E+0	0.00E+0	0.00E+0	0.00E+0	2.30E-9	0.00E+0	2.53E-9	-5.24E-9	1.60E-7
POCP	kg NMVOC eqv.	2.46E-3	1.20E-3	3.70E-4	1.35E-4	2.43E-4	0.00E+0	0.00E+0	0.00E+0	0.00E+0	6.70E-5	0.00E+0	9.46E-5	-4.39E-5	4.52E-3
ADP-f	MJ	9.91E+0	1.27E+0	3.58E+0	3.16E-1	8.26E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.57E-1	0.00E+0	1.92E-1	-7.46E-1	1.55E+1
ADP-mm	kg Sb-eqv.	4.22E-5	1.24E-6	1.31E-6	5.30E-7	2.37E-6	0.00E+0	0.00E+0	0.00E+0	0.00E+0	2.64E-7	0.00E+0	8.73E-8	-3.16E-8	4.80E-5
WDP	m3 world eqv.	5.16E-1	5.69E-3	6.72E-2	1.13E-3	3.39E-2	0.00E+0	0.00E+0	0.00E+0	0.00E+0	5.62E-4	0.00E+0	8.28E-3	-4.73E-3	6.28E-1

**ADPE**=Depletion of abiotic resources-elements | **ADPF**=Depletion of abiotic resources-fossil fuels | **GWP**=Global warming | **ODP**=Ozone layer depletion | **POCP**=Photochemical oxidants creation | **AP**=Acidification of soil and water | **EP**=Eutrophication | **HTP**=Human toxicity | **FAETP**=Ecotoxicity, fresh water | **MAETP**=Ecotoxicity, marine water (MAETP) | **TETP**=Ecotoxicity, terrestrial | **AP**=Acidification (AP) | **GWP-total**=Global warming potential (GWP-total) | **GWP-b**=Global warming potential - Biogenic (GWP-b) | **GWP-f**=Global warming potential - Fossil (GWP-f) | **GWP-luluc**=Global warming potential - Land use and land use change (GWP-luluc) | **ETP-fw**=Ecotoxicity, freshwater (ETP-fw) | **PM**=Particulate Matter (PM) | **EP-m**=Eutrophication marine (EP-m) | **EP-fw**=Eutrophication, freshwater (EP-fw) | **EP-T**=Eutrophication, terrestrial (EP-T) | **HTP-c**=Human toxicity, cancer (HTP-c) | **HTP-nc**=Human toxicity, non-cancer (HTP-nc) | **IR**=Ionising radiation, human health (IR) | **SQP**=Land use (SQP) | **ODP**=Ozone depletion (ODP) | **POCP**=Photochemical ozone formation - human health (POCP) | **ADP-f**=Resource use, fossils (ADP-f) | **ADP-mm**=Resource use, minerals and metals (ADP-mm) | **WDP**=Water use (WDP)

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Parameter	Unit	A1	A2	A3	A4	A5	B1	B2	B3	C1	C2	C3	C4	D	Total
PERE	MJ	1.15E+0	4.19E-2	1.90E-1	3.95E-3	1.01E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.97E-3	0.00E+0	6.31E-1	-7.88E-3	2.11E+0
PERM	MJ	0.00E+0	0.00E+0	2.03E-2	0.00E+0	1.02E-3	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	-1.22E-2	9.13E-3
PERT	MJ	1.15E+0	4.19E-2	2.10E-1	3.95E-3	7.64E-2	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.97E-3	0.00E+0	3.34E-3	-2.01E-2	1.46E+0
PENRE	MJ	9.45E+0	1.35E+0	2.76E+0	3.35E-1	9.78E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.67E-1	0.00E+0	5.40E+0	-7.76E-1	1.97E+1
PENRM	MJ	1.16E+0	0.00E+0	1.08E+0	0.00E+0	1.12E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	-4.83E-2	2.30E+0
PENRT	MJ	1.06E+1	1.35E+0	3.84E+0	3.35E-1	8.84E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.67E-1	0.00E+0	2.04E-1	-8.24E-1	1.66E+1
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	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	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	1.42E-2	2.60E-4	1.67E-3	3.84E-5	9.37E-4	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.91E-5	0.00E+0	2.02E-4	-6.61E-5	1.73E-2
HWD	Kg	1.11E-5	2.31E-6	2.33E-6	8.00E-7	9.65E-7	0.00E+0	0.00E+0	0.00E+0	0.00E+0	3.98E-7	0.00E+0	2.95E-7	-8.53E-7	1.74E-5
NHWD	Kg	2.14E-1	3.56E-2	8.82E-3	2.00E-2	5.76E-2	0.00E+0	0.00E+0	0.00E+0	0.00E+0	9.97E-3	0.00E+0	7.74E-1	-3.61E-4	1.12E+0
RWD	Kg	2.85E-5	8.35E-6	5.98E-6	2.07E-6	2.54E-6	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.03E-6	0.00E+0	1.15E-6	-3.70E-7	4.93E-5
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	0.00E+0	0.00E+0	2.70E-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	2.70E-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	0.00E+0	0.00E+0
EE	MJ	0.00E+0	0.00E+0	4.11E-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	0.00E+0	4.70E-1	4.74E-1
EET	MJ	0.00E+0	0.00E+0	2.60E-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	0.00E+0	2.97E-1	3.00E-1
EEE	MJ	0.00E+0	0.00E+0	1.51E-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	0.00E+0	1.73E-1	1.74E-1
<b>ECI NL</b>	<b>€</b>	<b>0,12</b>	<b>0,01</b>	<b>0,01</b>	<b>0,00</b>	<b>0,01</b>	<b>0,00</b>	<b>0,00</b>	<b>0,00</b>	<b>0,00</b>	<b>0,00</b>	<b>0,00</b>	<b>0,01</b>	<b>0,00</b>	<b>0,17</b>

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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### 1.9 ADDITIONAL INFORMATION

#### Allocation

There is no allocation applied for the environmental profiles / datasets used in this LCA.