

Result summary

960 Europlan Super

Forbo Eurocol Nederland B.V.

Calculation number: ReTHiNK-58078
Generation on: 22-03-2024
Issue date: 22-03-2024
Valid until: 22-03-2029
Status: verified



R<THiNK

1 General information

1.1 PRODUCT

960 Europlan Super

1.2 VALIDITY

Issue date: 22-03-2024

Valid until: 22-03-2029

1.3 OWNER OF THE DECLARATION



Manufacturer: Forbo Eurocol Nederland B.V.

Address: Industrieweg 1-2, 1520AC Wormerveer

E-mail: info.eurocol@forbo.com

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

Production location: Eurocol Nederland B.V

Address production location: Industrieweg 1, 1521NA Wormerveer

1.4 VERIFICATION OF THE DECLARATION

The independent verification is in accordance with the ISO 14025:2011. The LCA is in compliance with ISO 14040:2006 and ISO 14044:2006. The EN 15804:2012+A2:2019 serves as the core PCR.

Internal External

Martijn van Hovell, SGS Search / Intron

1.5 PRODUCT CATEGORY RULES

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

1.6 FUNCTIONAL UNIT

1 kg 960 Europlan Super

De productie (A1-A3) van één kilogram 960 Europlan Super egaliseermiddel, inclusief verpakkingsmateriaal transport naar de bouwplaats (A4) en verwerking (A5). Tevens is de eindlevensduur (C2-D) beschouwd. Fase B2, B3 en C1 zijn beschouwd maar niet van toepassing, derhalve zijn er 0 waarden weergegeven.

reference_unit: kilogram (kg)

1.7 CONVERSION FACTORS

Description	Value	Unit
reference_unit	1	kg
Conversion factor to 1 kg	0.999900	kg

1.8 SCOPE OF DECLARATION AND SYSTEM BOUNDARIES

This is a Cradle to gate with options 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	ND	ND	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

1 General information

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

The 960 Europlan Super is een superieur, zelfvloeibaar egalisatiemiddel voor cementgebonden- en andere steenachtige ondergrond.

2.2 APPLICATION (INTENDED USE OF THE PRODUCT)

Voor het egaliseren in laagdiktes van maximaal 15 mm van cementgebonden en andere steenachtige ondergrond, welke met een vloerbedekking moeten worden belegd. Bij toepassing op schepen geldt een maximale laagdikte van 10 mm. In geval van verpompen: Raadpleeg vooraf bij de pompleverancier of de pomp geschikt is voor alle soorten egalisaties. Pompen met een te hoge mengsnelheid kan de oorzaak zijn van onvoldoende vloeibarheid van het egalisatiemiddel.

2.3 DESCRIPTION PRODUCTION PROCESS

Via verticaal transport worden de grondstoffen middels vijzels in menger gedoseerd en gemengd, waarna het eindproduct in zakken wordt afgevuld. Tijdens (en na) productie vinden er geen emissies plaats.

2.4 CONSTRUCTION DESCRIPTION

- Voeg 23 kg 960 Europlan Super toe aan 5 - 5,5 liter koud en schoon leidingwater.
- Meng de mortel mechanisch met het Eurocol 855 Mengijzer tot een gelijkmatig geheel.
- Laat de aangemaakte mortel ca. 3 minuten rijpen en roer daarna de mortel kortstondig, met een laag toerental, door.
- De mortel binnen 30 minuten op de vloer aanbrengen met een vlakspaan of rakel.
- Bij verpompen van de 960 Europlan Super de mengunit zo instellen, dat per 23 kg 960 Europlan Super 5 - 5,5 kg liter koud en schoon leidingwater wordt toegevoegd.
- Zojuist aangebrachte egalisatielagen beschermen tegen tocht en directe zonlichtinval.
- Indien het noodzakelijk is de aangebrachte egalisatielaag te schuren, gebruik hiervoor een schuurgaas met grofheid 100 of fijner. De vloer na het schuren zorgvuldig stofvrij maken met een industrielostofzuiger. Indien nodig de vloer voorstrijken met 049 Europrimer ABS of 099 Dispersieprimer met een schuimroller. Droogtijd ca. 1 uur.
- Onder normale omstandigheden is de aangebrachte egalisatielaag na 2 - 3 uur beloopbaar. Bij een laagdikte tot 5 mm is de egalisatielaag na 24 uur legbaar.

3 Results

3.1 ENVIRONMENTAL IMPACT INDICATORS PER KILOGRAM

CORE ENVIRONMENTAL IMPACT INDICATORS EN15804+A2

Abbreviation	Unit	A1	A2	A3	A4	A5	B1	C2	C3	C4	D	Total
AP	mol H+ eqv.	9.42E-4	4.82E-4	7.73E-5	1.18E-4	9.03E-5	2.58E-6	3.95E-5	1.01E-5	5.00E-7	-3.68E-5	1.73E-3
GWP-total	kg CO ₂ eqv.	2.77E-1	7.09E-2	8.68E-3	2.04E-2	3.32E-2	1.12E-3	6.82E-3	1.62E-3	5.28E-5	-9.46E-3	4.10E-1
GWP-b	kg CO ₂ eqv.	-2.63E-3	6.46E-5	-7.36E-3	9.40E-6	-4.93E-4	1.21E-5	3.15E-6	9.33E-6	1.04E-7	-2.34E-5	-1.04E-2
GWP-f	kg CO ₂ eqv.	2.77E-1	7.08E-2	1.59E-2	2.04E-2	3.36E-2	1.10E-3	6.82E-3	1.61E-3	5.27E-5	-9.43E-3	4.18E-1
GWP-luluc	kg CO ₂ eqv.	2.52E-3	3.18E-5	1.10E-4	7.46E-6	1.35E-4	3.26E-7	2.50E-6	3.07E-7	1.47E-8	-4.94E-6	2.80E-3
EP-m	kg N eqv.	2.21E-4	1.63E-4	1.83E-5	4.16E-5	2.50E-5	5.54E-7	1.39E-5	4.02E-6	1.72E-7	-1.04E-5	4.77E-4
EP-fw	kg P eqv.	6.07E-6	9.07E-7	1.42E-6	2.05E-7	4.78E-7	6.30E-8	6.88E-8	5.02E-8	5.90E-10	-1.73E-7	9.08E-6
EP-T	mol N eqv.	2.42E-3	1.80E-3	1.84E-4	4.59E-4	2.75E-4	6.78E-6	1.54E-4	4.47E-5	1.90E-6	-1.20E-4	5.22E-3
ODP	kg CFC 11 eqv.	1.83E-8	1.50E-8	9.92E-10	4.49E-9	2.48E-9	5.35E-11	1.50E-9	2.09E-10	2.17E-11	-1.05E-9	4.21E-8
POCP	kg NMVOC eqv.	8.46E-4	5.05E-4	4.65E-5	1.31E-4	8.51E-5	1.68E-6	4.38E-5	1.22E-5	5.51E-7	-3.44E-5	1.64E-3
ADP-f	MJ	3.72E+0	1.06E+0	2.67E-1	3.07E-1	2.86E-1	1.45E-2	1.03E-1	2.16E-2	1.47E-3	-1.47E-1	5.63E+0
ADP-mm	kg Sb-eqv.	2.63E-6	1.65E-6	1.37E-7	5.16E-7	2.76E-7	4.45E-9	1.73E-7	4.54E-9	4.82E-10	-2.22E-7	5.17E-6
WDP	m ³ world eqv.	9.15E-2	4.23E-3	8.94E-3	1.10E-3	6.04E-3	1.11E-4	3.68E-4	9.80E-5	6.60E-5	-6.33E-2	4.92E-2

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) | EP-m=Eutrophication marine (EP-m) | EP-fw=Eutrophication, freshwater (EP-fw) | EP-T=Eutrophication, terrestrial (EP-T) | 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)

ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS EN15084+A2

Abbreviation	Unit	A1	A2	A3	A4	A5	B1	C2	C3	C4	D	Total
ETP-fw	CTUe	3.70E+0	9.56E-1	2.86E-1	2.74E-1	4.41E-1	1.47E-2	9.17E-2	1.75E-2	9.55E-4	-9.45E-2	5.68E+0
PM		6.49E-9	6.15E-9	5.54E-10	1.83E-9	8.54E-10	8.48E-12	6.13E-10	2.23E-10	9.72E-12	-5.66E-10	1.62E-8

ETP-fw=Ecotoxicity, freshwater (ETP-fw) | PM=Particulate Matter (PM) | 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)

3 Results

Abbreviation	Unit	A1	A2	A3	A4	A5	B1	C2	C3	C4	D	Total
disease incidence												
HTP-c	CTUh	6.87E-11	3.45E-11	5.60E-12	8.88E-12	8.72E-12	2.53E-13	2.97E-12	4.16E-13	2.21E-14	-3.65E-12	1.26E-10
HTP-nc	CTUh	2.57E-9	1.04E-9	1.77E-10	3.00E-10	2.66E-10	8.24E-12	1.00E-10	1.18E-11	6.79E-13	-9.83E-11	4.38E-9
IR	kBq U235 eqv.	8.07E-3	4.57E-3	6.28E-4	1.29E-3	8.04E-4	2.99E-5	4.31E-4	6.86E-5	6.04E-6	-2.54E-4	1.56E-2
SQP	Pt	1.17E+0	8.84E-1	3.11E-1	2.66E-1	1.42E-1	2.98E-3	8.91E-2	3.61E-3	3.09E-3	-7.18E-2	2.80E+0

ETP-fw=Ecotoxicity, freshwater (ETP-fw) | **PM**=Particulate Matter (PM) | **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)

CLASSIFICATION OF DISCLAIMERS TO THE DECLARATION OF CORE AND ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS

ILCD classification	Indicator	Disclaimer
ILCD type / level 1	Global warming potential (GWP)	None
	Depletion potential of the stratospheric ozone layer (ODP)	None
	Potential incidence of disease due to PM emissions (PM)	None
	AAcidification potential, Accumulated Exceedance (AP)	None
ILCD type / level 2	Eutrophication potential, Fraction of nutrients reaching freshwater end compartment (EP-freshwater)	None
	Eutrophication potential, Fraction of nutrients reaching marine end compartment (EP-marine)	None
	Eutrophication potential, Accumulated Exceedance (EP-terrestrial)	None
	Formation potential of tropospheric ozone (POCP)	None
	Potential Human exposure efficiency relative to U235 (IRP)	1
ILCD type / level 3	Abiotic depletion potential for non-fossil resources (ADP-minerals&metals)	2
	Abiotic depletion potential for fossil resources (ADP-fossil)	2
	Water (user) deprivation potential, deprivation-weighted water consumption (WDP)	2
	Potential Comparative Toxic Unit for ecosystems (ETP-fw)	2
	Potential Comparative Toxic Unit for humans (HTP-c)	2
	Potential Comparative Toxic Unit for humans (HTP-nc)	2

3 Results

ILCD classification	Indicator	Disclaimer
	Potential Soil quality index (SQP)	2
Disclaimer 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.		
Disclaimer 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.		

CORE ENVIRONMENTAL IMPACT INDICATORS EN15804+A1

Abbreviation	Unit	A1	A2	A3	A4	A5	B1	C2	C3	C4	D	Total
ADPE	Kg Sb	2.64E-6	1.65E-6	1.41E-7	5.16E-7	2.76E-7	4.45E-9	1.73E-7	4.54E-9	4.82E-10	-2.22E-7	5.18E-6
GWP	Kg CO2 Equiv.	2.75E-1	7.01E-2	1.59E-2	2.02E-2	3.34E-2	1.09E-3	6.76E-3	1.59E-3	5.17E-5	-9.26E-3	4.15E-1
ODP	Kg CFC-11 Equiv.	1.60E-8	1.21E-8	9.52E-10	3.58E-9	2.14E-9	5.38E-11	1.20E-9	1.74E-10	1.72E-11	-9.16E-10	3.53E-8
POCP	Kg Ethene Equiv.	1.75E-4	4.44E-5	8.14E-6	1.22E-5	1.28E-5	1.62E-7	4.08E-6	9.09E-7	5.51E-8	-4.17E-6	2.53E-4
AP	Kg SO2 Equiv.	7.48E-4	3.65E-4	6.09E-5	8.88E-5	7.03E-5	2.04E-6	2.97E-5	7.36E-6	3.78E-7	-2.84E-5	1.34E-3
EP	Kg PO43- Equiv.	1.28E-4	6.69E-5	1.36E-5	1.74E-5	1.25E-5	4.20E-7	5.84E-6	1.64E-6	7.29E-8	-4.49E-6	2.42E-4

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

NATIONAL ANNEX NMD

Abbreviation	Unit	A1	A2	A3	A4	A5	B1	C2	C3	C4	D	Total
ADPF	Kg Sb	1.81E-3	5.10E-4	1.37E-4	1.48E-4	1.40E-4	8.21E-6	4.97E-5	1.13E-5	7.04E-7	-7.77E-5	2.74E-3
HTP	kg 1.4 DB	7.52E-2	2.99E-2	3.82E-3	8.50E-3	7.07E-3	1.23E-4	2.85E-3	3.78E-4	2.34E-5	-2.27E-3	1.26E-1
FAETP	kg 1.4 DB	3.51E-3	8.19E-4	8.04E-4	2.48E-4	3.33E-4	3.38E-6	8.31E-5	6.52E-6	5.54E-7	-3.42E-5	5.78E-3
MAETP	kg 1.4 DB	3.69E+0	2.98E+0	3.04E-1	8.93E-1	5.70E-1	1.43E-2	2.99E-1	2.46E-2	1.98E-3	-1.42E-1	8.63E+0

ADPF=Depletion of abiotic resources-fossil fuels | **HTP**=Human toxicity | **FAETP**=Ecotoxicity. fresh water | **MAETP**=Ecotoxicity. marine water (MAETP) | **TETP**=Ecotoxicity. terrestrial

3 Results

Abbreviation	Unit	A1	A2	A3	A4	A5	B1	C2	C3	C4	D	Total
TETP	kg 1.4 DB	1.12E-3	1.10E-4	1.91E-4	3.00E-5	7.59E-5	5.56E-6	1.01E-5	4.64E-6	5.87E-8	-1.13E-5	1.53E-3

ADPF=Depletion of abiotic resources-fossil fuels | **HTP**=Human toxicity | **FAETP**=Ecotoxicity. fresh water | **MAETP**=Ecotoxicity. marine water (MAETP) | **TETP**=Ecotoxicity. terrestrie

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	C2	C3	C4	D	Total
PERE	MJ	2.28E-1	2.00E-2	7.83E-3	3.84E-3	1.42E-2	1.56E-3	1.29E-3	1.23E-3	1.19E-5	-4.18E-3	2.74E-1
PERM	MJ	0.00E+0	0.00E+0	6.99E-2	0.00E+0	3.49E-3	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	7.34E-2
PERT	MJ	2.28E-1	2.00E-2	7.77E-2	3.84E-3	1.77E-2	1.56E-3	1.29E-3	1.23E-3	1.19E-5	-4.18E-3	3.48E-1
PENRE	MJ	2.80E+0	1.13E+0	2.25E-1	3.26E-1	2.43E-1	1.55E-2	1.09E-1	2.31E-2	1.56E-3	-1.51E-1	4.71E+0
PENRM	MJ	1.18E+0	0.00E+0	5.99E-2	0.00E+0	6.20E-2	0.00E+0	0.00E+0	0.00E+0	0.00E+0	-8.59E-3	1.29E+0
PENRT	MJ	3.98E+0	1.13E+0	2.85E-1	3.26E-1	3.05E-1	1.55E-2	1.09E-1	2.31E-2	1.56E-3	-1.60E-1	6.01E+0
SM	Kg	0.00E+0	0.00E+0									
RSF	MJ	0.00E+0	0.00E+0									
NRSF	MJ	0.00E+0	0.00E+0									
FW	M3	2.80E-3	1.60E-4	3.21E-4	3.74E-5	1.88E-4	8.88E-6	1.25E-5	7.23E-6	1.57E-6	-1.48E-3	2.06E-3

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	C2	C3	C4	D	Total
HWD	Kg	2.75E-6	2.59E-6	2.23E-7	7.78E-7	3.57E-7	1.12E-8	2.60E-7	3.77E-8	2.20E-9	-2.10E-7	6.80E-6
NHWD	Kg	1.67E-2	6.10E-2	1.49E-3	1.95E-2	6.88E-3	4.27E-5	6.52E-3	3.01E-3	1.00E-2	-6.34E-4	1.24E-1
RWD	Kg	9.53E-6	6.93E-6	6.22E-7	2.02E-6	1.04E-6	2.99E-8	6.75E-7	9.71E-8	9.67E-9	-2.84E-7	2.07E-5

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

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ENVIRONMENTAL INFORMATION DESCRIBING OUTPUT FLOWS

Abbreviation	Unit	A1	A2	A3	A4	A5	B1	C2	C3	C4	D	Total
CRU	Kg	0.00E+0										
MFR	Kg	0.00E+0	0.00E+0	3.76E-3	0.00E+0	5.00E-2	0.00E+0	0.00E+0	9.90E-1	0.00E+0	0.00E+0	1.04E+0
MER	Kg	0.00E+0										
EE	MJ	0.00E+0	5.48E-2	5.48E-2								
EET	MJ	0.00E+0	3.47E-2	3.47E-2								
EEE	MJ	0.00E+0	2.01E-2	2.01E-2								

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 KILOGRAM

BIOGENIC CARBON CONTENT

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

Biogenic carbon content	Amount	Unit
Biogenic carbon content in the product	0	kg C
Biogenic carbon content in accompanying packaging	0.001996	kg C

UPTAKE OF BIOGENIC CARBON DIOXIDE

The following amount of uptake of carbon dioxide is account in module A1 by the main parts of the product. Related uptake and release of carbon dioxide in downstream processes are not taken into account in this number although they do appear in the presented results.

Uptake Biogenic Carbon dioxide	Amount	Unit
Packaging	0.007317	kg CO2 (biogenic)

3 Results

3.4 ENVIRONMENTAL COST INDICATOR NL PER KILOGRAM

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 NL	Share in total (%)
A1 Raw Materials Supply	€ 0,03	62,0 %
A2 Transport	€ 0,01	21,0 %
A3 Manufacturing	€ 0,00	3,9 %
A4 Transport from the gate to the site	€ 0,00	5,8 %
A5 Construction - Installation process	€ 0,00	6,8 %
B1 Use	€ 0,00	0,2 %
C2 Transport	€ 0,00	2,0 %
C3 Waste processing	€ 0,00	0,4 %
C4 Disposal	€ 0,00	0,0 %
D Benefits and loads beyond the product system boundary	€ 0,00	-2,1 %
ECI NL per functional unit	€ 0,04	

4 Contact information

Publisher	Operator	Owner of declaration
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