



**Environmental  
Product  
Declaration**

According to EN15804+A2 (+indicators A1)



This declaration is for:  
**XLPE 230/400kV 1x2500 EnMil AL1.2 +sc**

Provided by:  
**Prysmian Netherlands B.V.**



program operator  
**Stichting MRPI®**  
publisher  
**Stichting MRPI®**  
[www.mrpi.nl](http://www.mrpi.nl)

MRPI® registration  
**1.1.00638.2024**  
date of first issue  
**5-9-2024**  
date of this issue  
**5-9-2024**  
expiry date  
**5-9-2029**



**COMPANY INFORMATION**



Prysmian Netherlands B.V.  
Schieweg 9  
2627 AN DELFT  
Netherlands

**MRPI® REGISTRATION**

1.1.00638.2024

**DATE OF ISSUE**

5-9-2024

**EXPIRY DATE**

5-9-2029

**SCOPE OF DECLARATION**

This MRPI®-EPD certificate is verified by Tim Mol, EcoReview. The LCA study has been done by Mantijn van Leeuwen, NIBE BV. The certificate is based on an LCA-dossier according to EN15804+A2 (+indicators A1). It is verified according to the 'MRPI®-EPD verification protocol November 2020.v4.0'. EPD's of construction products may not be comparable if they do not comply with EN15804+A2. Declaration of SVHC that are listed on the 'Candidate list of Substances of Very High Concern for authorisation' when content exceeds the limits for registration with ECHA.

**PROGRAM OPERATOR**

Stichting MRPI®  
Kingsfordweg 151  
1043 GR  
Amsterdam

Ing. L. L. Oosterveen MSc. MBA  
Managing Director MRPI

**PRODUCT**

XLPE 230/400kV 1x2500 EnMil AL1.2 +sc

**DECLARED UNIT/FUNCTIONAL UNIT**

1m

**DESCRIPTION OF PRODUCT**

1 meter installed High Voltage Cable (400 kV) for a period of 50 years.

**VISUAL PRODUCT**



**MORE INFORMATION**

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<b>DEMONSTRATION OF VERIFICATION</b>	
CEN standard EN15804 serves as the core PCR(a)	
Independent verification of the declaration an data according to EN15804+A2 (+indicators A1)	
internal:	external: x
Third party verifier: Tim Mol, EcoReview	
[a] PCR = Product Category Rules	

**DETAILED PRODUCT DESCRIPTION**

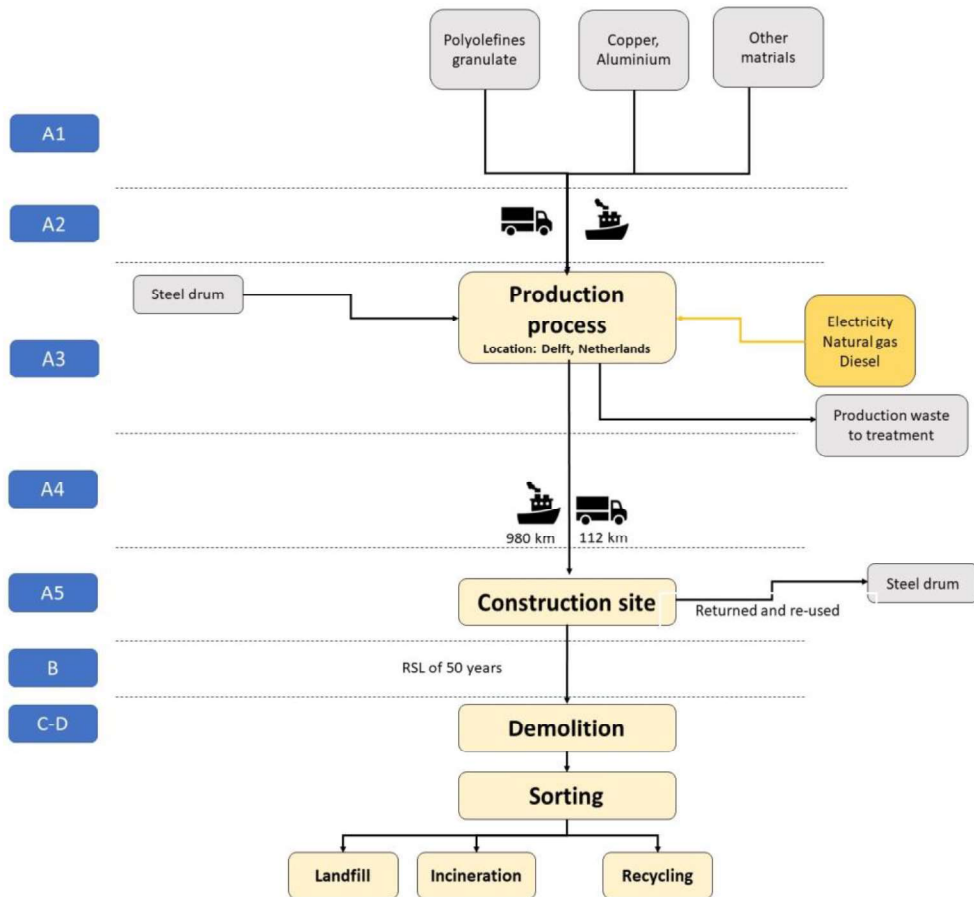
Prysmian High Voltage Cable (400 kV) for power transmission with mixed enamelled and oxidized copper conductor. These cables are used for high voltage power transmission networks.

The function of the product is to transport high voltage electricity (400kV), the cable is installed underground.

**SCOPE AND TYPE**

The product is produced in Delft, The Netherlands and is applied globally. In this EPD a transport scenario to Norway is applied. End of life scenario's from the Dutch LCA methodology are applied and are considered to be representative for Europe. Background database EcolInvent 3.6 is applied in the LCA study. The EPD's are generated with R<THINK (www.rethink-epd.com).

PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USER STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES
Raw material supply	Transport	Manufacturing	Transport gate to site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse- Recovery – Recycling-potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
X= Modules Assessed ND= Not Declared																



**REPRESENTATIVENESS**

All data are collected in 2023 and represents year 2022. Energy data for the production location Delft represent 2021 from the full year energy study for the location.

**ENVIRONMENT IMPACT per functional unit or declared unit (core indicators A2)**

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	8,53 E+01	2,31 E+00	9,47 E+00	9,71 E+01	4,17 E-01	2,63 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,74 E+00	3,87 E-01	2,34 E+01	1,71 E-01	-3,38 E+01
GWP-fossil	kg CO2 eq.	8,54 E+01	2,30 E+00	8,14 E+00	9,59 E+01	4,17 E-01	2,60 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,74 E+00	3,87 E-01	2,34 E+01	1,70 E-01	-3,38 E+01
GWP-biogenic	kg CO2 eq.	-3,13 E-01	1,03 E-03	1,34 E+00	1,03 E+00	1,94 E-04	2,04 E-03	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,76 E-03	1,78 E-04	3,25 E-03	1,06 E-03	1,72 E-01
GWP-luluc	kg CO2 eq.	1,90 E-01	8,60 E-04	1,37 E+00	1,56 E+00	3,30 E-04	3,19 E-03	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,60 E-04	1,42 E-04	2,09 E-03	1,10 E-05	-2,42 E-01
ODP	kg CFC11 eq.	5,10 E-06	5,08 E-07	6,33 E-07	6,24 E-06	8,59 E-08	1,57 E-08	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	3,81 E-07	8,53 E-08	7,35 E-07	1,07 E-08	-3,00 E-06
AP	mol H+ eq.	1,82 E+00	1,46 E-02	7,87 E-02	1,92 E+00	1,12 E-02	4,23 E-03	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	8,40 E-03	2,24 E-03	1,24 E-02	2,71 E-04	-8,81 E-01
EP-freshwater	kg PO4 eq.	1,55 E-02	2,30 E-05	6,60 E-04	1,62 E-02	6,09 E-06	3,51 E-05	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,12 E-05	3,90 E-06	8,27 E-05	4,55 E-07	6,10 E-03
EP-marine	kg N eq.	1,88 E-01	4,99 E-03	1,02 E-02	2,03 E-01	2,73 E-03	4,58 E-04	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	3,02 E-03	7,90 E-04	3,18 E-03	1,22 E-04	-7,05 E-02
EP-terrestrial	mol N eq.	2,70 E+00	5,50 E-02	1,84 E-01	2,94 E+00	3,04 E-02	6,57 E-03	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	3,32 E-02	8,71 E-03	3,55 E-02	1,07 E-03	-1,11 E+00
POCP	kg NMVOC eq.	6,69 E-01	1,56 E-02	3,67 E-02	7,21 E-01	8,17 E-03	1,61 E-03	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	8,79 E-03	2,49 E-03	9,60 E-03	3,39 E-04	-2,57 E-01
ADP-minerals & metals	kg Sb eq.	2,56 E-02	5,75 E-05	1,92 E-03	2,76 E-02	7,68 E-06	5,75 E-05	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	3,59 E-06	9,79 E-06	3,77 E-05	2,93 E-07	-9,95 E-03
ADP-fossil	MJ, net calorific value	1,40 E+03	3,46 E+01	1,14 E+02	1,55 E+03	5,99 E+00	3,41 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,50 E+01	5,83 E+00	2,13 E+01	8,00 E-01	-3,25 E+02
WDP	m3 world eq. Deprived	5,77 E+01	1,23 E-01	5,23 E+00	6,30 E+01	3,02 E-02	1,35 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	4,88 E-02	2,09 E-02	1,18 E+00	1,34 E-02	-1,26 E+01

- GWP-total = Global Warming Potential total
- GWP-fossil = Global Warming Potential fossil fuels
- GWP-biogenic = Global Warming Potential biogenic
- GWP-luluc = Global Warming Potential land use and land use change
- ODP = Depletion potential of the stratospheric ozone layer
- AP = Acidification Potential, Accumulated Exceedence
- EP-freshwater = Eutrophication Potential, fraction of nutrients reaching freshwater end compartment
- EP-marine = Eutrophication Potential, fraction of nutrients reaching marine end compartment
- EP-terrestrial = Eutrophication Potential, Accumulated Exceedence
- POCP = Formation potential of tropospheric ozone photochemical oxidants
- ADP-minerals&metals = Abiotic Depletion Potential for non-fossil resources [2]
- ADP-fossil = Abiotic Depletion for fossil resources potential [2]
- WDP = Water (user) deprivation potential, deprivation-weighted water consumption [2]

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 experience with the indicator.

### ENVIRONMENT IMPACT per functional unit or declared unit (additional indicators A2)

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PM	Disease incidence	8,22 E-06	2,04 E-07	5,29 E-07	8,96 E-06	4,02 E-08	2,02 E-08	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,80 E-08	3,48 E-08	1,11 E-07	5,42 E-09	-3,77 E-06
IRP	kBq U235 eq.	3,78 E+00	1,45 E-01	2,70 E-01	4,20 E+00	2,48 E-02	9,29 E-03	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,09 E-01	2,44 E-02	8,83 E-02	3,72 E-03	2,43 E-02
ETP-fw	CTUe	2,88 E+04	3,07 E+01	8,52 E+02	2,97 E+04	6,92 E+00	6,51 E+01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,57 E+01	5,20 E+00	3,01 E+02	2,91 E+00	-1,17 E+04
HTP-c	CTUh	6,40 E-07	1,01 E-09	1,95 E-08	6,61 E-07	3,44 E-10	1,45 E-09	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	3,03 E-09	1,69 E-10	4,67 E-09	3,23 E-11	-3,90 E-07
HTP-nc	CTUh	4,43 E-05	3,35 E-08	1,11 E-06	4,55 E-05	8,46 E-09	9,91 E-08	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,57 E-08	5,69 E-09	1,03 E-07	2,24 E-09	-2,60 E-05
SQP	----	6,35 E+02	2,96 E+01	3,68 E+02	1,03 E+03	7,01 E+00	2,23 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	3,42 E+00	5,06 E+00	1,01 E+01	1,94 E+00	-3,27 E+01

- PM = Potential incidence of disease due to PM emissions
- IRP = Potential Human exposure efficiency relative to U235 [1]
- ETP-fw = Potential Comparative Toxic Unit for ecosystems [2]
- HTP-c = Potential Comparative Toxic Unit for humans [2]
- HTP-nc = Potential Comparative Toxic Unit for humans, non-cancer [2]
- SQP = Potential soil quality index [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.

**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 experience with the indicator.

### OUTPUT FLOWS AND WASTE CATEGORIES per functional unit or declared unit (A1 / A2)

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
HWD	kg	7,90 E-04	8,68 E-05	4,97 E-03	5,85 E-03	1,08 E-05	2,87 E-05	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	6,60 E-05	1,48 E-05	1,08 E-02	1,05 E-06	1,28 E-02
NHWD	kg	3,37 E+01	2,16 E+00	1,98 E+00	3,78 E+01	5,37 E-01	9,50 E-02	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	6,16 E-02	3,70 E-01	5,64 E-01	3,29 E+00	-2,06 E+01
RWD	kg	3,71 E-03	2,28 E-04	2,85 E-04	4,22 E-03	3,85 E-05	9,42 E-06	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,71 E-04	3,83 E-05	8,11 E-05	5,12 E-06	-1,23 E-04
CRU	kg	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	9,37 E-03	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
MFR	kg	0,00 E+00	0,00 E+00	2,80 E+00	2,80 E+00	0,00 E+00	2,25 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,15 E+01	0,00 E+00	1,94 E+01
MER	kg	0,00 E+00	0,00 E+00	4,27 E-03	4,27 E-03	0,00 E+00	8,54 E-06	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
EEE	MJ	0,00 E+00	0,00 E+00	-4,55 E+00	-4,55 E+00	0,00 E+00	1,35 E-04	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	-6,24 E+01
ETE	MJ	0,00 E+00	0,00 E+00	-7,83 E+00	-7,83 E+00	0,00 E+00	2,32 E-04	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	-1,07 E+02

- HWD = Hazardous Waste Disposed
- NHWD = Non Hazardous Waste Disposed
- RWD = Radioactive Waste Disposed
- CRU = Components for reuse
- MFR = Materials for recycling
- MER = Materials for energy recovery
- EEE = Exported Electrical Energy
- ETE = Exported Thermal Energy

**RESOURCE USE per functional unit or declared unit (A1 / A2)**

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PERE	MJ	2,38 E+02	4,30 E-01	1,30 E+02	3,69 E+02	1,14 E+00	7,86 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,86 E-01	7,30 E-02	2,19 E+00	3,53 E-02	-8,98 E+01
PERM	MJ	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
PERT	MJ	2,38 E+02	4,30 E-01	1,30 E+02	3,68 E+02	1,14 E+00	7,86 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,86 E-01	7,30 E-02	2,19 E+00	3,53 E-02	-8,98 E+01
PENRE	MJ	1,50 E+03	3,68 E+01	1,27 E+02	1,66 E+03	6,36 E+00	3,64 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,66 E+01	6,19 E+00	2,27 E+01	8,49 E-01	-3,95 E+02
PENRM	MJ	0,00 E+00	0,00 E+00	-4,62 E+00	-4,62 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	3,57 E+01
PENRT	MJ	1,49 E+03	3,68 E+01	1,22 E+02	1,65 E+03	6,36 E+00	3,64 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,66 E+01	6,19 E+00	2,27 E+01	8,49 E-01	-3,59 E+02
SM	kg	4,09 E+00	0,00 E+00	4,60 E-01	4,55 E+00	0,00 E+00	9,09 E-03	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
RSF	MJ	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
NRSF	MJ	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
FW	m3	1,44 E+00	4,18 E-03	1,21 E-01	1,56 E+00	9,90 E-04	3,42 E-03	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,95 E-03	7,10 E-04	3,58 E-02	9,46 E-04	-3,87 E-01

- PERE = Use of renewable energy excluding renewable primary energy resources
- PERM = Use of renewable energy resources used as raw materials
- PERT = Total use of renewable primary energy resources
- PENRE = Use of non-renewable primary energy resources excluding non-renewable energy resources used as raw materials
- PENRM = Use of non-renewable primary energy resources used as raw materials
- PENRT = Total use of non-renewable primary energy resources
- SM = Use of secondary materials
- RSF = Use of renewable secondary fuels
- NRSF = Use of non-renewable secondary fuels
- FW = Use of net fresh water

**BIOGENIC CARBON CONTENT per functional unit or declared unit (A1 / A2)**

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
BBCpr	Kg C	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
BCCpa	kg C	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00

- BCCpr = Biogenic carbon content in product
- BCCpa = Biogenic carbon content in packaging

### CALCULATION RULES

For each product a Bill of Material (BOM) is available from the Production management system. For each of the raw materials product data sheets have been provided. All suppliers have been contacted to inform if EPD or other environmental data are available.

#### Consistency

The consistency is guaranteed by only using one database, EcolInvent 3.6.

#### Reproducibility

The values on which this LCA is performed, can be found in the EPD report and the corresponding project file. The way on which the data are collected and where the information is based on, is included. As a result, the reformed LCA is reproducible.

### SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION

#### End-of-life stage (C2-C4)

At the end-of-life stage scenarios are used for waste processing. The scenarios on which the LCA is based are outlined in more detail below.

Aluminium, cast alloy for civil construction (NMD ID 6)	Value	Unit
Transport distance for landfill (module C2)	100	km
Transport distance for incineration (module C2)	150	km
Transport distance for recycling (module C2)	50	km
Landfill	0	%
Incineration	3	%
Recycling	97	%

Copper, mixed (electricity cables) (NMD ID 42)	Value	Unit
Transport distance for landfill (module C2)	100	km
Transport distance for incineration (module C2)	150	km
Transport distance for recycling (module C2)	50	km
Landfill	10	%
Incineration	5	%
Recycling	85	%

Polyolefines (i.a. pe,pp) (i.a. pipes, foils) (NMD ID 57)	Value	Unit
Transport distance for landfill (module C2)	100	km
Transport distance for incineration (module C2)	150	km
Transport distance for recycling (module C2)	50	km
Landfill	10	%
Incineration	85	%
Recycling	5	%

#### Product stage (A1-A3)

All input flows (e.g. raw materials, transportation, energy use, packaging, etc.) and output flows (e.g. production waste) are considered in this LCA. The total neglected input flows do therefore not exceed the limit of 5% of energy use and mass or 5% on impact per environmental effect.

#### Construction process stage (A4-A5)

All input flows (e.g. transportation to the construction site, additional raw material use for construction, installation energy (use)of energy use for assembly , etc.) and output flows (e.g. construction waste, packaging waste, etc.) are considered in this LCA. The total neglected input flows do therefore not exceed the limit of 5% of energy use and mass or 5% on impact per environmental effect.

#### End of life stage (C1-C4)

All input flows (e.g. energy use for demolition or disassembly, transport to waste processing, etc.) and output flows (e.g. end-of-life waste processing of the product, etc.) are considered in this LCA. The total neglected input flows do therefore not exceed the limit of 5% of energy use and mass or 5% on impact per environmental effect.





Benefits and loads beyond the system boundary (Module D)

All benefits and loads beyond the system boundary resulting from reusable products, recyclable materials and/or useful energy carriers leaving the product system are considered in this LCA.

#### DECLARATION OF SVHC

At the best of our knowledge, none of the "Candidate Substances" belonging to the last version of the "Candidate Substances List" released in June 2024 are supposed to exceed the 0, 1% by weight of the articles we supply to you.

#### REFERENCES

ISO 14040

ISO 14040:2006-10, Environmental management - Life cycle assessment - Principles and framework; EN ISO 14040:2006

ISO 14044

ISO 14044:2006-10, Environmental management - Life cycle assessment - Requirements and guidelines; EN ISO 14040:2006

ISO 14025

ISO 14025:2011-10: Environmental labels and declarations — Type III environmental declarations — Principles and procedures

EN 15804+A1

EN 15804+A1: 2013: Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products

EN 15804+A2

EN 15804+A2: 2019: Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products

NMD-verification protocol

NMD-verification protocol version 1.0, July 2020, foundation NMD

NMD Determination method

NMD Determination method Environmental performance Construction works v1.2 March 2022, foundation NMD

PCR TenneT

TenneT AC Cables Framework Agreement Product Category Rules TenneT (v. March 2022)

NPCR 027 Part B for electrical cables and wires

EPD-Norge, Product category rules NPCR 027 Part B for electrical cables and wires, issue date: 01-03-2022

Rapport categorie 3 data Nationale Milieudatabase

Rapport categorie 3 data Nationale Milieudatabase Hoofdstuk 26 Kabelwerk, v.1, issue data 6 October 2022

#### REMARKS

None.