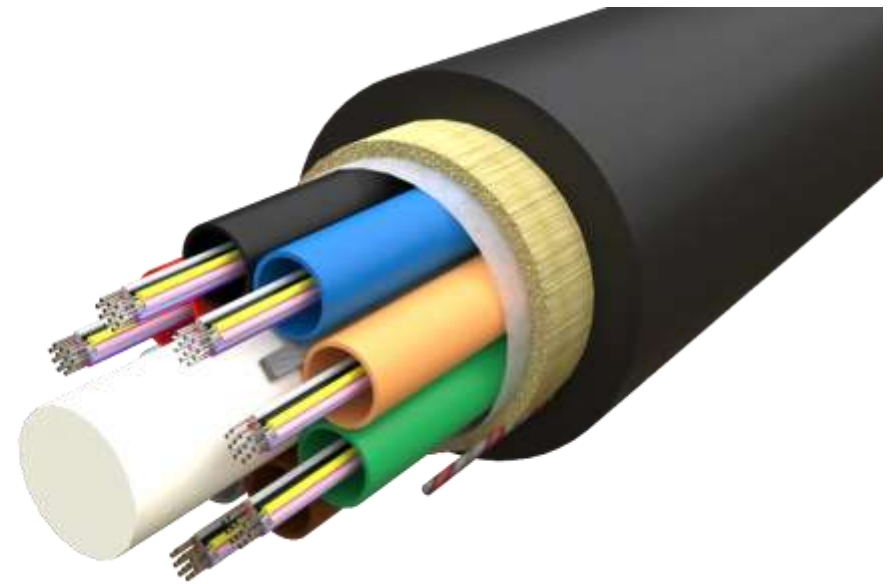


# ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

96F Micro Optical fibre cable (6.5mm) 250µm  
Melbye Skandinavia Sverige



EPD HUB, EPD number XXXXX

Published on XXX, last updated on XXX, valid until XXX

## GENERAL INFORMATION

### MANUFACTURER

Manufacturer	Melbye Skandinavia Sverige
Address	Prost Stabels Vei 22, 2019 Skedsmokorset, Norway
Contact details	kontakt@melbye.no
Website	<a href="https://melbye.com/">https://melbye.com/</a>

### EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	and ISO 14025
PCR	EPD Hub Core PCR Version 1.1, 5 Dec 2023
Sector	Manufactured product
Category of EPD	Third party verified EPD
Parent EPD number	
Scope of the EPD	Cradle to gate with options, A4-A5, and modules C1-C4, D
EPD author	Aditya Dharmendra Nishad
EPD verification	Independent verification of this EPD and data, according to ISO 14025: <input type="checkbox"/> Internal verification <input checked="" type="checkbox"/> External verification
EPD verifier	#VERIFIER#

The manufacturer has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programs may not be comparable. EPDs of construction products may not be comparable if

they do not comply with EN 15804 and if they are not compared in a building context.

### PRODUCT

Product name	<b>96F Micro Optical fibre cable (6.5mm) 250µm</b>
Additional labels	See appendix
Product reference	<b>12F Micro optical fibre cable 250µm, 24F Micro optical Fibre cable 250µm, 48F Micro optical fibre cable 250µm, 72F Micro optical fibre cable 250µm, 96F Micro optical fibre cable 250µm, 144F Micro optical fibre cable 250µm, 192F Micro optical fibre cable 250µm, 288F Micro optical fibre cable 250µm,</b>
Place of production	Sterlite Technologies Limited, Survey no. 68/1, Madhuban Dam Rd, Rakholi, Silvassa, Dadra and Nagar Haveli and Daman and Diu 396240
Period for data	1st January 2023 - 31st December 2023
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	0 %

## ENVIRONMENTAL DATA SUMMARY

Declared unit	1 Unit
Declared unit mass	39.6 kg
GWP-fossil, A1-A3 (kgCO <sub>2</sub> e)	7.28E+02
GWP-total, A1-A3 (kgCO <sub>2</sub> e)	6.98E+02
Secondary material, inputs (%)	1.17
Secondary material, outputs (%)	16.7
Total energy use, A1-A3 (kWh)	2870
Net freshwater use, A1-A3 (m <sup>3</sup> )	9.49

## PRODUCT AND MANUFACTURER

### ABOUT THE MANUFACTURER

Melbye Group is one of Norway's oldest family-owned companies, with a history dating all the way back to 1907. We have a proud tradition of technical innovation and trade, and today, we are a leading provider of forward-thinking products and system solutions for critical infrastructure. We have expertise within transmission and utilities, fiber, ducts and chambers and safety.

We serve customers throughout the Nordic region and the United Kingdom, engage with stakeholders across Europe, and collaborate with around 200 partners and suppliers.

While our headquarters are located just outside Oslo, Norway, we also have offices at multiple locations in Norway, Sweden, and the United Kingdom, as well as representatives in Finland, India and China. Together, we are more than 120 co-workers who share the company's core values: Innovation,

teamwork, and professionalism.

With advanced expertise spread across our core areas and a dedication to long-term operation and future-oriented development, we stand at the forefront of addressing future challenges. We take pride in contributing to the development of critical infrastructure that will shape tomorrow's society.

### PRODUCT DESCRIPTION

An optical fiber cable, also called a fiber optic cable, is a cable containing one or more thin strands of glass fibers that transmit data signals in the form of light pulses, allowing for high-speed data transmission over long distances due to the principle of total internal reflection, and are immune to electromagnetic interference because they carry light instead of electrical current; essentially acting as a pipe for light signals to travel through.

Composition: Each fiber consists of a central glass core surrounded by a cladding layer, which helps to contain the light within the fiber.

Data transmission: Light pulses are encoded with data at the sending end and decoded at the receiving end.

Benefits: High bandwidth, low signal loss, immunity to electromagnetic interference, suitable for long-distance data transmission.

Applications: Telecommunications, internet, cable television, data centers, medical imaging.

#### This EPD covers the products:

- 12F Micro optical fibre cable 250µm,
- 24F Micro optical fibre cable 250µm,
- 48F Micro optical fibre cable 250µm,
- 72F Micro optical fibre cable 250µm,
- 96F Micro optical fibre cable 250µm,
- 144F Micro optical fibre cable 250µm,
- 192F Micro optical fibre cable 250µm,
- 288F Micro optical fibre cable 250µm,

In the annex to this EPD, a scaling table is provided to reflect the GWP impacts for the range of products produced in the same plant.

Further information can be found at <https://melbye.com/>.

### PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	0	India
Minerals	100	India
Fossil materials		
Bio-based materials		

### BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	8.48

### FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 Unit
Mass per declared unit	39.6 kg
Functional unit	
Reference service life	25 years

### SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0,1 % (1000 ppm).

# PRODUCT LIFE-CYCLE

## SYSTEM BOUNDARY

This EPD covers the life-cycle modules listed in the following table.

Product stage			Assembly stage		Use stage							End of life stage				Beyond the system boundaries		
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D		
X	X	X	X	X	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction/ demolition	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR

## MANUFACTURING AND PACKAGING (A1-A3)

The environmental impacts considered for the product stage cover the manufacturing of raw materials used in the production as well as packaging materials and other ancillary materials. Also, fuels used by machines, and handling of waste formed in the production processes at the manufacturing facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

## TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts occurred from final products delivery to construction site (A4) cover fuel direct exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions.

Cable's end use is in Norway and Sweden, accordingly shipping distance plus distance from port to customer is considered as 50Km as an average distance

## PRODUCT USE AND MAINTENANCE (B1-B7)

This is not in scope of this EPD

Air, soil, and water impacts during the use phase have not been studied.

## PRODUCT END OF LIFE (C1-C4, D)

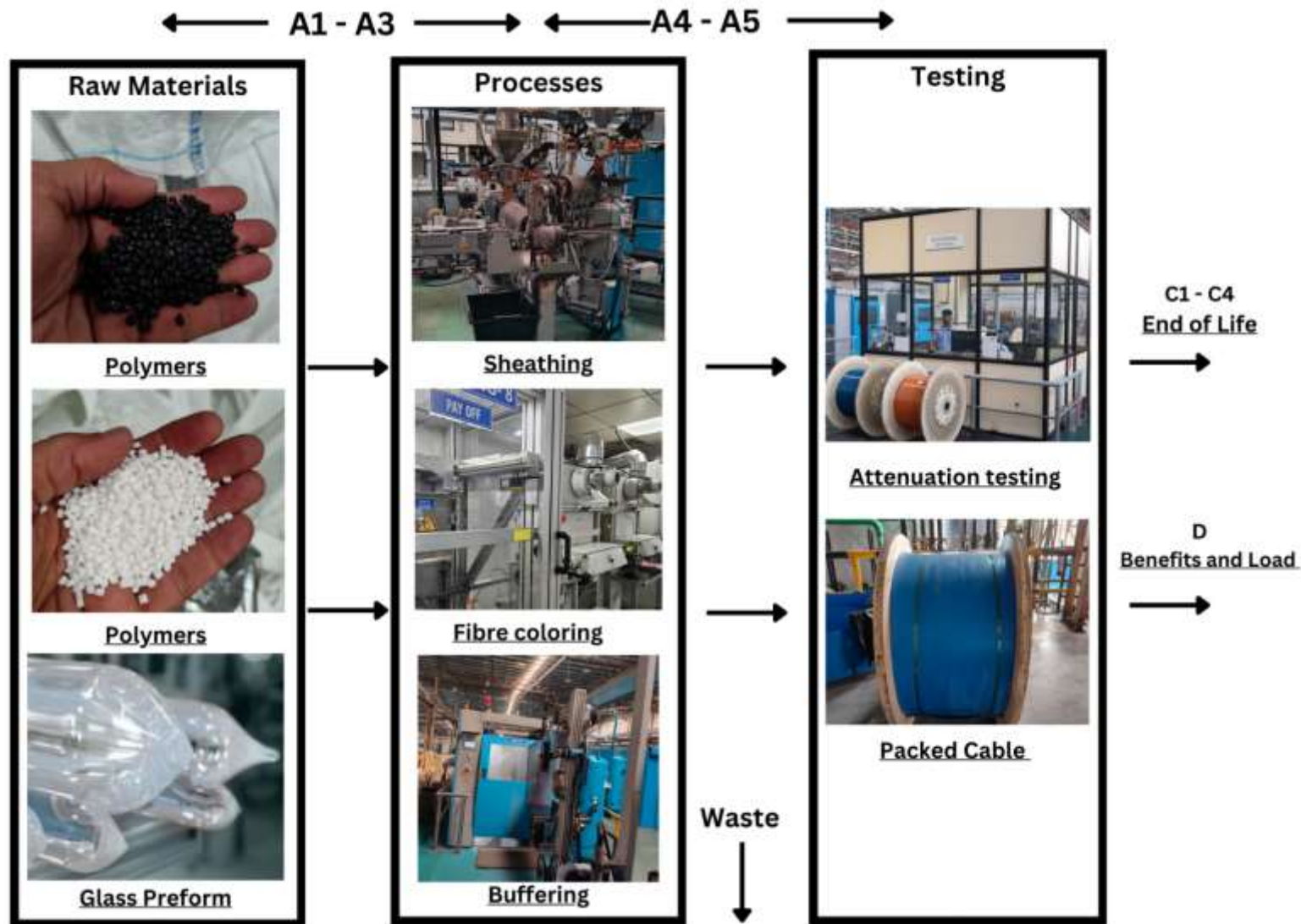
Installation of product is done manually however we have considered 0.01kwh/kg as standard as energy used in removing the Micro cable (energy consumption during demolition) from the line. As these Micro cable are used in Norway and Sweden transport by lorry (16-32 Metric tons) class Euro 6 and distance as 50 kms is considered. the entire product is incinerated after been used.

D —

For wooden untreated wooden wheel, wood incineration energy and heat benefit is accounted for as per Wood packaging EU scenario.



# MANUFACTURING PROCESS



## LIFE-CYCLE ASSESSMENT

### CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the reference standard and the applied PCR. The study does not exclude any hazardous materials or substances. The study includes all major raw material and energy consumption. All inputs and outputs of the unit processes, for which data is available for, are included in the calculation. There is no neglected unit process more than 1% of total mass or energy flows. The module specific total neglected input and output flows also do not exceed 5% of energy usage or mass.

### ALLOCATION, ESTIMATES AND ASSUMPTIONS

Allocation is required if some material, energy, and waste data cannot be measured separately for the product under investigation. All allocations are done as per the reference standards and the applied PCR. In this study, allocation has been done in the following ways:

Data type	Allocation
Raw materials	Partly allocated by mass or volume
Packaging material	No allocation
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

### AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	0 %

This EPD is product and factory specific and does not contain average calculations.

### LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. The EPD Generator uses Ecoinvent v3.10.1 and One Click LCA databases as sources of environmental data.

# ENVIRONMENTAL IMPACT DATA

## CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total <sup>1)</sup>	kg CO <sub>2</sub> e	1.91E+02	4.93E+01	4.59E+02	6.98E+02	3.98E+01	3.78E+01	MND	MND	MND	MND	MND	MND	MND	3.97E-02	5.10E-01	4.81E+01	9.28E-01	-2.15E+01
GWP – fossil	kg CO <sub>2</sub> e	1.90E+02	4.92E+01	4.89E+02	7.28E+02	3.98E+01	6.72E+00	MND	MND	MND	MND	MND	MND	MND	3.97E-02	5.10E-01	4.82E+01	9.28E-01	-1.70E+01
GWP – biogenic	kg CO <sub>2</sub> e	6.26E-02	0.00E+00	-3.11E+01	-3.10E+01	0.00E+00	3.11E+01	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	-5.61E-02	0.00E+00	-4.39E+00
GWP – LULUC	kg CO <sub>2</sub> e	9.59E-01	2.20E-02	4.80E-01	1.46E+00	1.78E-02	7.32E-04	MND	MND	MND	MND	MND	MND	MND	4.06E-06	2.28E-04	1.47E-03	5.66E-05	-4.03E-02
Ozone depletion pot.	kg CFC-11e	1.41E-04	7.27E-07	2.90E-06	1.44E-04	5.87E-07	1.05E-08	MND	MND	MND	MND	MND	MND	MND	6.07E-10	7.53E-09	3.44E-08	2.24E-09	-2.50E-07
Acidification potential	mol H <sup>+</sup> e	9.10E-01	1.68E-01	2.31E+00	3.39E+00	1.36E-01	4.58E-03	MND	MND	MND	MND	MND	MND	MND	3.58E-04	1.74E-03	1.11E-02	6.16E-04	-9.76E-02
EP-freshwater <sup>2)</sup>	kg Pe	1.55E-01	3.83E-03	1.74E+00	1.90E+00	3.10E-03	1.36E-04	MND	MND	MND	MND	MND	MND	MND	1.14E-06	3.97E-05	-1.51E-01	9.13E-06	-1.31E-02
EP-marine	kg Ne	2.34E-01	5.52E-02	4.13E-01	7.02E-01	4.46E-02	3.56E-03	MND	MND	MND	MND	MND	MND	MND	1.66E-04	5.71E-04	4.78E-03	2.05E-03	-1.55E-02
EP-terrestrial	mol Ne	1.79E+00	6.00E-01	4.31E+00	6.71E+00	4.85E-01	2.02E-02	MND	MND	MND	MND	MND	MND	MND	1.82E-03	6.21E-03	4.52E-02	2.51E-03	-1.43E-01
POCP (“smog”) <sup>3)</sup>	kg NMVOCe	6.38E-01	2.48E-01	1.25E+00	2.14E+00	2.00E-01	6.18E-03	MND	MND	MND	MND	MND	MND	MND	5.42E-04	2.56E-03	1.32E-02	1.09E-03	-4.66E-02
ADP-minerals & metals <sup>4)</sup>	kg Sbe	2.76E-03	1.37E-04	5.54E-04	3.45E-03	1.11E-04	2.45E-06	MND	MND	MND	MND	MND	MND	MND	1.42E-08	1.42E-06	1.07E-05	1.95E-07	-2.94E-05
ADP-fossil resources	MJ	3.44E+03	7.15E+02	6.21E+03	1.04E+04	5.77E+02	9.01E+00	MND	MND	MND	MND	MND	MND	MND	5.19E-01	7.40E+00	1.32E+01	1.93E+00	-3.43E+02
Water use <sup>5)</sup>	m <sup>3</sup> e depr.	1.31E+02	3.53E+00	2.84E+02	4.18E+02	2.85E+00	3.13E-01	MND	MND	MND	MND	MND	MND	MND	1.30E-03	3.65E-02	1.34E+00	9.43E-03	-8.04E+00

1) GWP = Global Warming Potential; 2) EP = Eutrophication potential. Required characterisation method and data are in kg P-eq. Multiply by 3,07 to get PO4e; 3) POCP = Photochemical ozone formation; 4) ADP = Abiotic depletion potential; 5) EN 15804+A2 disclaimer for Abiotic depletion and Water use and optional indicators except Particulate matter and Ionizing radiation, human health. The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.



### ADDITIONAL (OPTIONAL) ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Particulate matter	Incidence	1.07E-05	4.93E-06	1.58E-05	3.14E-05	3.98E-06	8.61E-08	MND	MND	MND	MND	MND	MND	MND	1.02E-08	5.10E-08	1.36E-07	1.40E-08	-5.86E-07
Ionizing radiation <sup>6)</sup>	kBq 11235e	6.17E+00	6.22E-01	2.76E+01	3.44E+01	5.03E-01	2.33E-02	MND	MND	MND	MND	MND	MND	MND	2.30E-04	6.44E-03	5.02E-02	1.91E-03	-8.46E+00
Ecotoxicity (freshwater)	CTUe	8.53E+02	1.01E+02	1.58E+03	2.53E+03	8.17E+01	4.34E+00	MND	MND	MND	MND	MND	MND	MND	2.86E-02	1.05E+00	3.17E+01	2.87E+00	-3.80E+01
Human toxicity, cancer	CTUh	3.25E-08	8.13E-09	6.74E-08	1.08E-07	6.57E-09	5.09E-10	MND	MND	MND	MND	MND	MND	MND	4.08E-12	8.41E-11	2.86E-09	4.53E-11	-3.48E-09
Human tox. non-cancer	CTUh	9.88E-07	4.63E-07	2.14E-06	3.59E-06	3.74E-07	2.15E-08	MND	MND	MND	MND	MND	MND	MND	6.46E-11	4.79E-09	7.87E-08	8.94E-09	-1.48E-07
SQP <sup>7)</sup>	-	5.91E+02	7.20E+02	6.90E+02	2.00E+03	5.81E+02	7.56E+00	MND	MND	MND	MND	MND	MND	MND	3.63E-02	7.45E+00	1.39E+01	4.49E+00	-8.33E+01

6) EN 15804+A2 disclaimer for Ionizing radiation, human health. 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; 7) SQP = Land use related impacts/soil quality.

### USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Renew. PER as energy <sup>8)</sup>	MJ	1.42E+02	9.79E+00	8.01E+02	9.52E+02	7.91E+00	-1.39E+02	MND	MND	MND	MND	MND	MND	MND	3.29E-03	1.01E-01	-1.11E+01	3.01E-02	-4.70E+01
Renew. PER as material	MJ	4.50E+00	0.00E+00	2.85E+02	2.90E+02	0.00E+00	-2.85E+02	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	-4.50E+00	0.00E+00	3.82E+01
Total use of renew. PER	MJ	1.46E+02	9.79E+00	1.09E+03	1.24E+03	7.91E+00	-4.25E+02	MND	MND	MND	MND	MND	MND	MND	3.29E-03	1.01E-01	-1.56E+01	3.01E-02	-8.82E+00
Non-re. PER as energy	MJ	2.62E+03	7.15E+02	6.03E+03	9.36E+03	5.77E+02	-1.93E+02	MND	MND	MND	MND	MND	MND	MND	5.19E-01	7.40E+00	-9.14E+02	-3.02E+02	-3.43E+02
Non-re. PER as material	MJ	7.89E+02	0.00E+00	1.64E+02	9.53E+02	0.00E+00	-1.64E+02	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	-7.89E+02	0.00E+00	2.52E+00
Total use of non-re. PER	MJ	3.41E+03	7.15E+02	6.20E+03	1.03E+04	5.77E+02	-3.57E+02	MND	MND	MND	MND	MND	MND	MND	5.19E-01	7.40E+00	-1.70E+03	-3.02E+02	-3.41E+02
Secondary materials	kg	4.62E-01	3.04E-01	6.92E-01	1.46E+00	2.46E-01	1.18E-02	MND	MND	MND	MND	MND	MND	MND	2.15E-04	3.15E-03	5.64E-02	6.97E-04	-3.68E-02
Renew. secondary fuels	MJ	3.15E-01	3.86E-03	4.15E-03	3.23E-01	3.12E-03	9.69E-05	MND	MND	MND	MND	MND	MND	MND	5.63E-07	4.00E-05	3.16E-04	1.31E-05	-1.64E-04
Non-ren. secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	m <sup>3</sup>	2.87E+00	1.06E-01	6.52E+00	9.49E+00	8.53E-02	-1.43E-02	MND	MND	MND	MND	MND	MND	MND	3.43E-05	1.09E-03	1.65E-02	-2.87E-02	-2.77E-01

8) PER = Primary energy resources.

### END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste	kg	7.48E+00	1.21E+00	3.86E+01	4.73E+01	9.78E-01	1.01E-01	MND	MND	MND	MND	MND	MND	MND	5.77E-04	1.25E-02	9.21E-01	3.39E-03	-1.08E+00
Non-hazardous waste	kg	1.80E+02	2.24E+01	1.06E+03	1.26E+03	1.81E+01	2.95E+01	MND	MND	MND	MND	MND	MND	MND	7.87E-03	2.32E-01	3.46E+01	3.85E+01	-6.44E+01
Radioactive waste	kg	2.59E-03	1.55E-04	2.86E-02	3.13E-02	1.25E-04	5.90E-06	MND	MND	MND	MND	MND	MND	MND	5.70E-08	1.60E-06	1.41E-05	4.76E-07	-2.17E-03

### END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.04E+00	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	6.61E+00	0.00E+00	0.00E+00
Materials for energy rec	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.50E+01	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	1.78E+02	0.00E+00	0.00E+00

### ENVIRONMENTAL IMPACTS – EN 15804+A1, CML / ISO 21930

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming Pot.	kg CO <sub>2</sub> e	1.88E+02	4.90E+01	4.88E+02	7.24E+02	3.96E+01	6.92E+00	MND	MND	MND	MND	MND	MND	MND	3.94E-02	5.07E-01	4.90E+01	8.88E-01	-1.70E+01
Ozone depletion Pot.	kg CFC <sub>11</sub> e	9.45E-05	5.80E-07	2.46E-06	9.76E-05	4.69E-07	8.47E-09	MND	MND	MND	MND	MND	MND	MND	4.81E-10	6.01E-09	2.91E-08	1.79E-09	-2.07E-07
Acidification	kg SO <sub>2</sub> e	7.57E-01	1.28E-01	1.95E+00	2.84E+00	1.04E-01	3.34E-03	MND	MND	MND	MND	MND	MND	MND	2.52E-04	1.33E-03	8.18E-03	4.58E-04	-8.30E-02
Eutrophication	kg PO <sub>4</sub> <sup>3</sup> e	4.32E-01	3.12E-02	2.39E+02	2.40E+02	2.52E-02	1.04E-03	MND	MND	MND	MND	MND	MND	MND	5.88E-05	3.23E-04	2.34E-03	2.99E-04	-9.70E-03
POCP (“smog”)	kg C <sub>2</sub> H <sub>4</sub> e	4.97E-02	1.14E-02	9.33E-02	1.54E-01	9.23E-03	3.30E-04	MND	MND	MND	MND	MND	MND	MND	1.89E-05	1.18E-04	7.38E-04	1.72E-04	-4.64E-03
ADP-elements	kg Sbe	2.59E-03	1.34E-04	5.49E-04	3.27E-03	1.08E-04	2.37E-06	MND	MND	MND	MND	MND	MND	MND	1.38E-08	1.39E-06	8.65E-06	1.90E-07	-2.92E-05
ADP-fossil	MJ	3.19E+03	7.05E+02	5.24E+03	9.14E+03	5.69E+02	8.62E+00	MND	MND	MND	MND	MND	MND	MND	5.15E-01	7.30E+00	1.24E+01	1.90E+00	-1.94E+02

### ENVIRONMENTAL IMPACTS – GWP-GHG - THE INTERNATIONAL EPD SYSTEM

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-GHG <sup>9)</sup>	kg CO <sub>2</sub> e	1.91E+02	4.93E+01	4.90E+02	7.29E+02	3.98E+01	6.72E+00	MND	MND	MND	MND	MND	MND	MND	3.97E-02	5.10E-01	4.82E+01	9.28E-01	-1.71E+01

9) This indicator includes all greenhouse gases excluding biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product as defined by IPCC AR 5 (IPCC 2013). In addition, the characterisation factors for the flows - CH<sub>4</sub> fossil, CH<sub>4</sub> biogenic and Dinitrogen monoxide - were updated in line with the guidance of IES PCR 1.2.5 Annex 1. This indicator is identical to the GWP-total of EN 15804:2012+A2:2019 except that the characterization factor for biogenic CO<sub>2</sub> is set to zero.

## SCALING TABLE FOR DIFFERENT TYPES OF Micro optical fibre cables:

This EPD covers the following listed Micro optical fibre cables:

Sr no.	Micro optical fibre cables	Weight (Kg)	Total number of fibres	GWP-total, (kgCO2e)	GWP-fossil, (kgCO2e)
1	12F Micro optical fibre cable 250µm	24.8	12	297.35	297.07
2	24F Micro optical fibre cable 250µm	25.4	24	356.27	355.81
3	48F Micro optical fibre cable 250µm	26.3	48	463.41	462.63
4	72F Micro optical fibre cable 250µm	27.4	72	581.78	580.67
5	96F Micro optical fibre cable (6.5mm) 250µm	39.6	96	825.67	824.17
6	96F Micro optical fibre cable (6 mm) 250µm	34	96	761.67	760.2
7	144F Micro optical fibre cable 250µm	42.6	144	993.88	991.73
8	192F Micro optical fibre cable 250µm	63.5	192	1,485.35	1,482.33
9	288F Micro optical fibre cable 250µm	86.6	288	2,020.72	2,016.40

## VERIFICATION STATEMENT

### VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online

This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

### THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

#SIGNATURE#