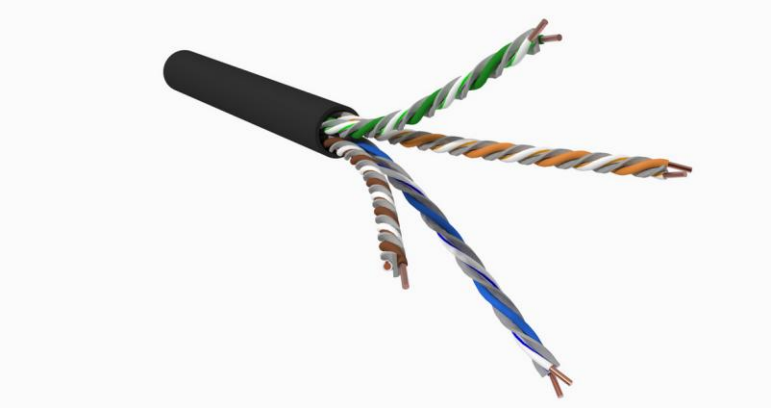
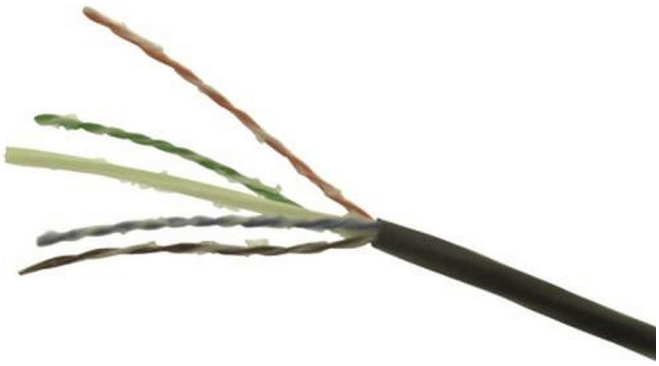
ENVIRONMENTAL PRODUCT DECLARATION (EPD)

CommScope Copper Cables Cat6 & Cat6A Outdoor, Non-rated





At CommScope, we believe that corporate responsibility and sustainability means making decisions that have a positive impact on our people, planet and bottom line.

CommScope's leaders have adopted a philosophy on corporate responsibility that embraces our core company values and holds us accountable to produce smart solutions that respect our people and our planet:

Meaningful integrity is a decisive personal and company-wide commitment to enable faster, smarter and more sustainable solutions while demonstrating the utmost respect for our human and natural resources.

This philosophy finds form in three pillars:

- Environmental

- Social

- Governance

Our commitment enables us to invest wisely in our future. By utilizing innovative technology, intelligent engineering and energy-efficient designs, we're building sustainable networks that make our customers more agile while also preserving the natural ecosystems from which we source our raw materials.

This declaration is an environmental product declaration (EPD) in accordance with ISO 14025, EN 15804 + A2. EPDs rely on Life Cycle Assessment (LCA) to provide information on a number of environmental impacts of products over their life cycle. Exclusions: EPDs do not indicate that any environmental or social performance benchmarks are met, and there may be impacts that they do not encompass. LCAs do not typically address the site-specific environmental impacts of raw material extraction, nor are they meant to assess human health toxicity. EPDs can complement but cannot replace tools and certifications that are designed to address these impacts and/or set performance thresholds – e.g. Type 1 certifications, health assessments and declarations, environmental impact assessments, etc. Accuracy of Results: EPDs regularly rely on estimations of impacts, and the level of accuracy in estimation of effect differs for any particular product line and reported impact. Comparability: EPDs are not comparative assertions and are either not comparable or have limited comparability when they cover different life cycle stages, are based on different product category rules or are missing relevant environmental impacts. EPDs from different programs may not be comparable.

EPD PROGRAM AND PROGRAM OPERATOR NAME, ADDRESS, LOGO, AND WEBSITE	ASTM International, 100 barr harbor drive west conshohocken, PA 19428
GENERAL PROGRAM INSTRUCTIONS AND VERSION NUMBER	General Program Instructions. Version 8.0. April 29, 2020
MANUFACTURER NAME AND ADDRESS	CommScope, Inc. 3642 E US Highway 70, Claremont, North Carolina 28610
DECLARATION NUMBER	EPD 1199
DECLARED PRODUCT & FUNCTIONAL UNIT OR DECLARED UNIT	CommScope® Cat6 & Cat6A Outdoor, Non-rated Data Networking Cable Functional Unit: one meter of installed cable with a service life of 30 years and 70% use rate, including end-of-life disposition.
REFERENCE PCR AND VERSION NUMBER	PEP ecopassport Program: Part A PCR for Electrical, Electronic and HVAC-R Products and Part B PSR Specific Rules for Wire Cables and Accessories
DESCRIPTION OF PRODUCT APPLICATION/USE	CommScope cable products are primarily used in commercial, residential and educational settings.
PRODUCT RSL DESCRIPTION (IF APPL.)	30 Years
MARKETS OF APPLICABILITY	Global
DATE OF ISSUE	May 27, 2026
PERIOD OF VALIDITY	5 Years
EPD TYPE	Product Specific
RANGE OF DATASET VARIABILITY	N/A
EPD SCOPE	Cradle-to-Grave
YEAR(S) OF REPORTED PRIMARY DATA	2025
LCA SOFTWARE DATABASE(S) & VERSION NUMBER	SimaPro 10.2.0.0 & Ecoinvent 3.11
LCIA METHODOLOGY & VERSION NUMBER	CML- IA Baseline 3.11, TRACI 2.2 and EN15804+A2 (adapted) 1.03

The sub-category PCR review was conducted by:	
This declaration was independently verified in accordance with ISO 14025: 2006. The "PEP ecopassport Program PCR for electrical, electronic and HVAC-R products", v4.0, 2021 based on EN 15804:2012 + A2:2019, serves as the core PCR. ☐ INTERNAL ☒EXTERNAL	Timothy S Brooke ASTM International
This life cycle assessment was conducted in accordance with ISO 14044 and the reference PCR by:	
This life cycle assessment was independently verified in accordance with ISO 14044 and reference PCR by:	Thomas P. Gloria, Ph. D. Industrial Ecology Consultants

Environmental declarations from different programs (ISO 14025) may not be comparable. Comparison of the environmental performance using EPD information shall consider all relevant information modules over the full life cycle of the products within the building. This PCR allows EPD comparability only when the same functional requirements between products are ensured and the requirements of EN 15804:2012+A2:2019 are met. It should be noted that different LCA software and background LCI datasets may lead to differences results for upstream or downstream of the life cycle stages declared.

General Information

Description of Company/Organization

CommScope helps design, build and manage wired and wireless networks around the world. Corporate responsibility and sustainability drive us to make decisions that benefit people, society, the planet and our bottom line. We enable faster, smarter and more sustainable solutions while respecting human and natural resources. Innovative technology, intelligent engineering and energy-efficient design help us meet our goals. CommScope builds sustainable networks that make our customers more agile, simultaneously helping to preserve the natural ecosystems from which we source components and materials.

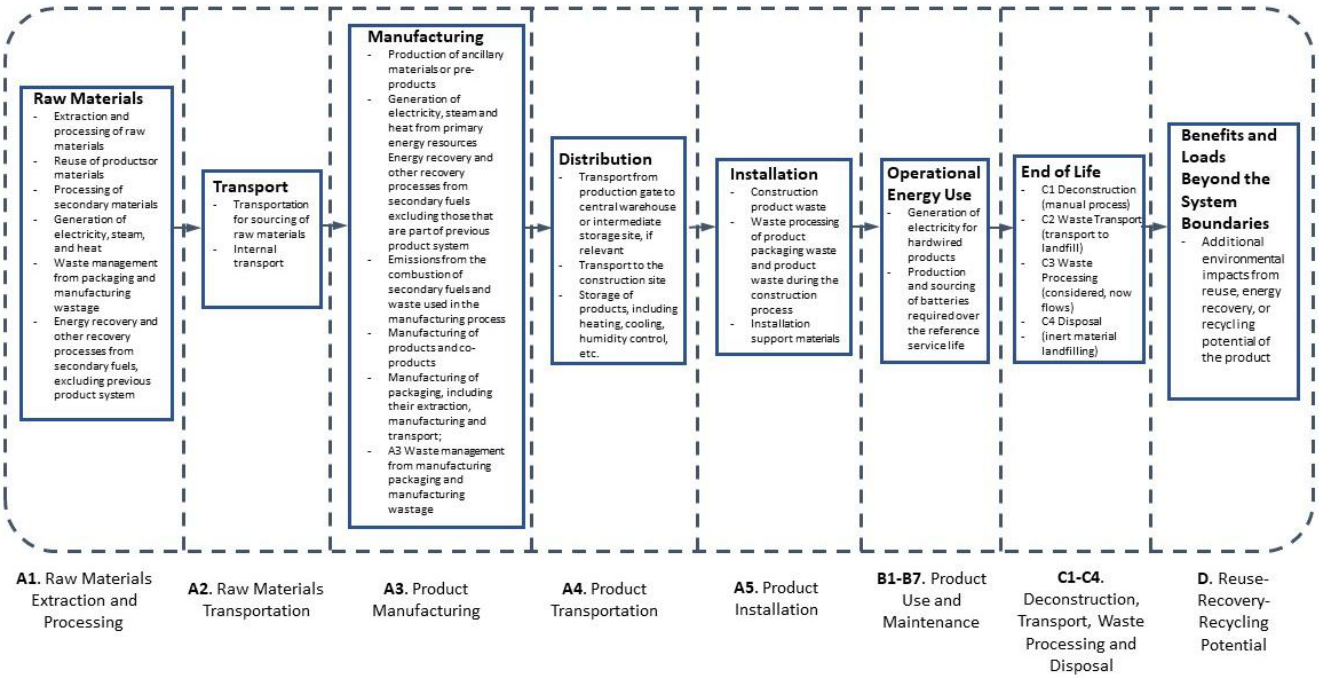
Product Description

CommScope's copper cables are twisted pair copper cables, ensuring reliable data transmission in various applications.

This EPD covers Cat6 and Cat6A Outdoor, Non-rated cable product family, as shown in the table below:

Cable Category		Cable Type	Gauge	CommScope Category Name
Outdoor, Non-rated	Cat6	U/UTP	4/21	1573A
			4/24	1571A, CS34O
	Cat6A	F/UTP	4/23	1572A, 1592A
		F/UTP, U/UTP	4/23	CS41O

Flow Diagram



Manufacturer Specific EPD

This product-specific EPD was developed based on the cradle-to-grave (modules A1-C4) Life Cycle Assessment. The EPD accounts for raw material extraction and processing, transport, product manufacturing, distribution,

installation, disposal, and potential benefits and loads following the end-of-life disposal. The environmental impact results are reported as group results due to the high similarity between each sub-category in the group. When the group includes more than one sub-category, the max impact results are reported.

Application

The Cat6 and Cat6A Outdoor, Non-rated rated cable is appropriate for LAN cabling applications including 10GBASE-T, 1000BASE-T, 1000BASE-TX, 100BASE-TX, 10BASE-T, 155Mbps ATM, TP-PMD, Token Ring, VoIP.

Material Composition

The primary product components and/or materials must be indicated as a percentage mass to enable the user of the EPD to understand the composition of the product in delivery status.

The compositions of the Cat6 and Cat6A Outdoor, Non-rated cable products are given per meter as follows:

Cable Types				Total Weight (g/m)	Outer Jacket	Gel	Inner Jacket	Isolator	Conductor	Tape	Drain wire
C6	1573A	U/UTP	4/21	61.98	19.8%	14.4%	12.6%	2.1%	51.1%	0.0%	0.0%
C6	1571A, CS34O	U/UTP	4/24	37.68	27.6%	19.7%	13.7%	0.0%	38.9%	0.0%	0.0%
C6A	1572A, 1592A	F/UTP	4/23	67.41	36.2%	17.6%	8.8%	2.8%	26.5%	6.5%	1.7%
C6A	CS41O	F/UTP, U/UTP	4/23	72.15	22.6%	23.6%	8.2%	9.4%	30.3%	4.3%	1.6%

Placing on the Market/ Application Rules

CMR, NEC Article 800, UL 1666, and UL 444 safety standards. The cable also complies with ANSI/TIA-568.2-D, CENELEC EN50288-6-1, and ISO/IEC 11801 transmission standards.

Properties of Declared Product as Shipped

CommScope Cat6 and Cat6A Outdoor, Non-rated Data Networking cables are delivered as a complete unit, inclusive of all installation materials and instructions.

Methodological Framework

Functional Unit

The declaration refers to the functional unit of one meter of installed cable as specified in the PCR.

Name	Value	Unit
Function Unit	1	meter

System Boundary

This is a cradle to grave Environmental Product Declaration. The following life cycle phases were considered:

Life Cycle Stage	Life Cycle Module	Module	X = Included/ MND = Module Not Declared
Product Stage	Raw Material Supply & Parts manufacturing	A1	X
	Transport	A2	X
	Assembly process	A3	X
Construction Process Stage	Transport from gate to the site	A4	X
	Installation process	A5	X
Use Stage	Use	B1**	X
	Maintenance	B2**	X
	Repair	B3**	X
	Replacement	B4**	X
	Refurbishment	B5**	X
	Operational energy use	B6	X
	Operational water use	B7**	X
End of Life Stage*	Deconstruction/ demolition	C1**	X
	Transport	C2	X
	Waste processing	C3	X
	Disposal	C4	X
Benefits and Loads Beyond the System Boundaries	Reuse-Recovery-Recycling potential	D	X

*This includes provision of all materials, products and energy, packaging processing and its transport, as well as waste processing up to the end-of waste state or disposal of final residues.

**There is no activity in these stages, their declared value is “0”.

Reference Service Life

The reference service life of a properly installed CommScope Cat6 and Cat6A Outdoor, Non-rated Data Networking cable is 30 years.

Allocation

Allocation was determined on a per meter basis for the system.

Cut-off Criteria

Processes whose total contribution to the final result, with respect to their mass and in relation to all considered impact categories, is less than 1% can be neglected. The sum of the neglected processes may not exceed 5% by mass of the considered impact categories. For this, a documented assumption is permissible.

For Hazardous Substances the following requirements apply:

- The Life Cycle Inventory (LCI) of hazardous substances will be included, if the inventory is available.
- If the LCI for a hazardous substance is not available, the substance will appear as an input in the LCI of the product, if its mass represents more than 0.1% of the product composition.
- If the LCI of a hazardous substance is approximated by modeling another substance, documentation will be provided.

This EPD is in compliance with the cut-off criteria. No processes were neglected or excluded. Capital items for the production processes (machine, buildings, etc.) were not taken into consideration.

Data Sources

Primary data were collected for every process in the product system under the control of CommScope. Secondary data from the Ecoinvent 3.11 database were utilized when necessary. These data were evaluated and have temporal, geographic, and technical coverage appropriate to the scope of the product category.

Data Quality

The data sources used are complete and representative of global systems in terms of geographic and technological coverage and are a recent vintage (i.e. less than ten years old). Primary data are based on direct information from CommScope manufacturing site. Secondary data sets were used for raw materials extraction and processing, end of life, transportation, and energy production flows. Wherever secondary data is used, the study adopts critically reviewed data for consistency, precision, and reproducibility to limit uncertainty.

Period Under Review

The period under review is the full calendar year of 2025.

Treatment of Biogenic Carbon

The uptake and release of biogenic carbon throughout the product life cycle follows EN15804+A2 Section 6.4.4.

Comparability and Benchmarking

A comparison or an evaluation of EPD data is only possible if all data sets to be compared were created according to EN 15804 + A2 and the building context, respectively the product-specific characteristics of performance, are taken into account. Environmental declarations from different programs may not be comparable. Full conformance with the PCR allows for EPD comparability only when all stages of a product's life cycle have been considered. However, variations and deviations are possible.

Units

The LCA results within this EPD are reported in SI units.

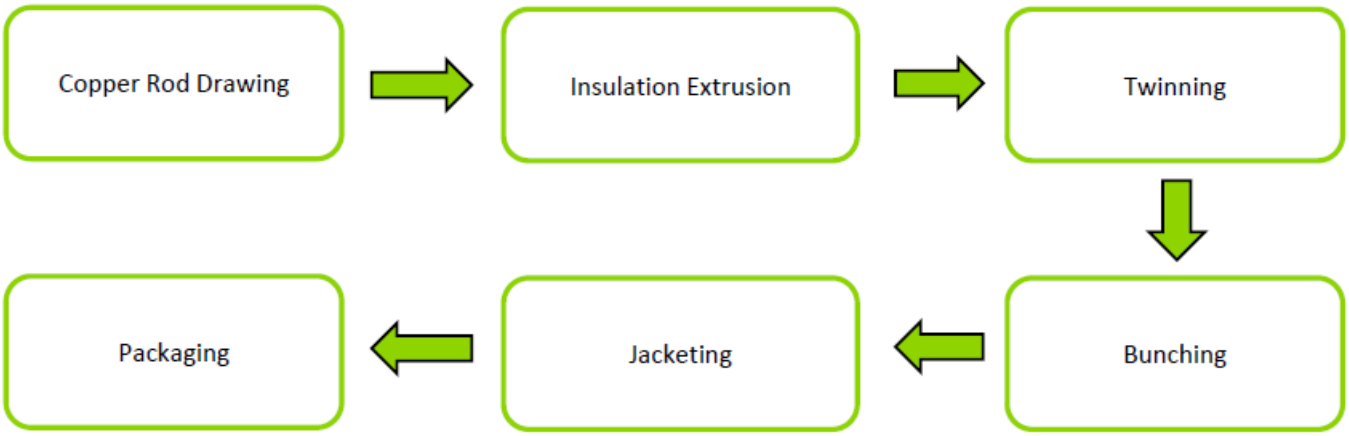
Additional Environmental Information

Background Data

For life cycle modeling of the products considered, SimaPro- LCA software tool, developed by PRé-Sustainability, is used. The Ecoinvent database contains consistent and documented datasets which are available online. To ensure comparability of results in the LCA, data from the Ecoinvent database were used for materials, energy, transportation, and waste treatment.

Manufacturing

The primary manufacturing processes occur in multiple locations. Copper wire goes through two drawing processes with an immediate subsequent annealing process. The wire continues down the line to an extruder where the insulation material is applied to the wire. Cooling and drying of the insulated wire then occur. Two of these insulated wires are then twinned together around each other. Four twinned wire pairs, along with other cable components such as separator tape and/or shielding material, are then bunched together. Subsequently, the bunched wire has a jacket extruded around the bunched cable. After the jacket is applied, the cable is cooled and packaged. Various packaging options exist, the products are shipped at different lengths with spools and/or boxes.



Packaging

All packaging is fully recyclable. The packaging material is composed of corrugated fiberboard, plywood and polypropylene for individual product packaging. Therefore, a normalized packaging group is created to represent the general condition. The packaging material is reported as per meter of cable below:

Total weight (g/m)	Corrugated fiberboard	Plywood	PP	Biogenic Carbon Content (kg C/m)*
5	1.667	1.667	1.666	1.67E-03

*The Biogenic Carbon Content in packaging materials is calculated based on 50% dry mass of fiberboard and wood.

Transformation

Transport to Installation Site (A4)		
Description	**Value**	**Unit**
Transport type	Truck/ lorry > 32 metric ton	
Fuel type/ Liters of Fuel	Diesel, compliant with EURO5	
Liters of Fuel	35	l/100 km
Transport Distance (average)	3500	km
Capacity Utilization	85	%
Weight of products transported	-	kg

Product Installation

CommScope Cat6 and Cat6A Outdoor, Non-rated Data Networking cables are distributed through and installed by trained installation technicians adhering to local/national standards and requirements. Installation accounts for energy consumption, material wastage, and support materials use during the installation process, as well as waste treatment of packaging materials. The installation scrap was assumed to be a 5% average in accordance with the PCR. Installation is typically completed using battery-powered equipment and can therefore be neglected due to the amount of electricity that is consumed during the use phase.

Installation into the building (A5)		
Name	**Normalized packaging (per meter)**	**Unit**
Auxiliary materials	-	kg
Water consumption	-	m^3
Other resources	-	kg
Electricity consumption	-	kWh
Other energy carriers	-	MJ
Product loss per functional unit	0.00E+00	kg
Waste materials at construction site	0.00E+00	kg
Output substance (recycle)	0.00E+00	kg
Output substance (landfill)	0.00E+00	kg
Output substance (incineration)	0.00E+00	kg
Packaging waste (recycle)	5.0E-03	kg
Packaging waste (landfill)	0.00E+00	kg
Packaging waste (incineration)	0.00E+00	kg
Direct emissions to ambient air*, soil, and water	0.00E+00	kg CO_2
VOC emissions	-	kg

*CO2 emissions to air from disposal of packaging

Reference Service Life		
Name	**Value**	**Unit**

Reference Service Life	30	years
Declared product properties (at the gate) and finishes, etc.	-	
Design application parameters (if instructed by the manufacturer), including the references to the appropriate practices and application codes	-	
An assumed quality of work, when installed in accordance with the manufacturer's instructions	-	
Outdoor environment, (for outdoor applications), e.g. weathering, pollutants, UV and wind exposure, building orientation, shading, temperature	-	
Indoor environment (for indoor applications), e.g. temperature, moisture, chemical exposure	-	
Usage conditions, e.g. frequency of use, mechanical exposure	-	
Maintenance e.g. required frequency, type and quality and replacement of components	-	

Product Use

No cleaning, maintenance, repair, replacement or refurbishment is required. Operational energy use was modeled as use phase losses determined by the IEC 61156-5 standard. The maximum loss values for each cable category are detailed in the table below and were used in the B6 stage.

Operational Energy Use (B6)		
Name	**Value**	**Unit**
Ancillary materials specified by material	-	kg
Net freshwater consumption	-	m^3
Electricity consumption	0.25	kWh
Power output of equipment	-	kWh
Characteristic performance	-	-
Further assumptions for scenario development	-	-

Maximum Loss Values per Cable Type		
Cable Type	**Protocol**	**Power consumption on cable with 4 pairs (mW/m)**
Cat6	1G Ethernet	1.140
Cat6A	10G Ethernet	1.365
Cat7	10G Ethernet	1.365
Cat7A	10G Ethernet	1.358

Disposal

The product can be mechanically disassembled to separate the different materials. The copper material is recovered with 60% and landfilled with 40%. The remainder of components are disposed of through waste incineration with energy recovery or landfilled, in accordance with the PCR, except for Aluminum included foil which would be 100% landfilled.

End of Life (C2-C4)		
Name	**Cat6 and Cat6A Outdoor, Non-rated Cable (per meter)**	**Unit**
Collected separately	0	kg
Collected as mixed waste	0	kg
Reuse	0	kg
Recycling	1.47E-02 ~ 3.17E-02*	kg
Landfilling	1.20E-02 ~ 2.64E-02*	kg
Incineration with energy recovery	1.10E-02 ~ 2.30E-02*	kg
Energy conversion- Electricity	20	%
Energy conversion- Heat	50	%

*The values are given as a range among all the cables in this EPD.

Re-use Phase

Re-use of the product is not common due to the nature of hard-wiring the product into the building system. However, energy in the form of heat and electricity has been recovered from the waste processing of packaging materials at the waste processing of product materials at the end-of-life disposal stage (C2-C4). Energy recovery for the incineration of polymer materials was calculated according to Appendix D of the Part A PCR.

Energy recovery Potential (D)		
Name	**Cat6 and Cat6A Outdoor, Non-rated Cable (per meter)**	**Unit**
Net energy benefit of energy recovery from packaging wastes incineration (A5-Installation) in the form of heat	0.00E+00	MJ
Net energy benefit of energy recovery from packaging wastes incineration (A5-Installation) in the form of electricity	0.00E+00	MJ
Net energy benefit of energy recovery from product wastes incineration (C2-C4 End of life Disposal) in the form of heat	2.45E-01 ~ 5.13E-01*	MJ
Net energy benefit of energy recovery from product wastes incineration (C2-C4 End of life Disposal) in the form of electricity	9.80E-02 ~ 2.05E-01*	MJ
Total Net energy benefits of energy recovery in the form of heat	2.45E-01 ~ 5.13E-01*	MJ
Total Net energy benefits of energy recovery in the form of electricity	9.80E-02 ~ 2.05E-01*	MJ

*The values are given as a range among all the cables in this EPD.

LCA Results

Results shown below are for Cat6, U/UTP, 4/21, 1573A Cables.

CML-IA baseline V3.11 / EU25										
Impact category	**Unit**	**Total**	**A1-A3**	**A4**	**A5**	**B6**	**C2**	**C3**	**C4**	**D**
Abiotic depletion	kg Sb eq	3.85E-04	3.84E-04	7.20E-08	1.54E-09	8.20E-07	1.90E-08	7.72E-09	1.06E-08	-9.49E-09
Abiotic depletion (fossil fuels)	MJ	7.29E+00	5.55E+00	3.68E-01	7.85E-03	1.16E+00	9.73E-02	8.46E-02	2.75E-02	-2.65E-01
Global warming (GWP100a)	kg CO2 eq	5.40E-01	3.79E-01	2.59E-02	5.53E-04	9.40E-02	6.85E-03	7.56E-03	2.62E-02	-2.36E-02
Ozone layer depletion (ODP)	kg CFC-11 eq	5.27E-09	4.40E-09	2.82E-10	6.03E-12	3.96E-10	7.47E-11	4.05E-11	7.08E-11	-1.18E-10
Photochemical oxidation	kg C2H4 eq	9.78E-04	9.59E-04	3.99E-06	8.50E-08	1.22E-05	1.05E-06	1.19E-06	8.31E-07	-3.69E-06
Acidification	kg SO2 eq	2.47E-02	2.43E-02	6.96E-05	1.48E-06	2.62E-04	1.84E-05	3.13E-05	1.06E-05	-9.71E-05
Eutrophication	kg PO4--- eq	5.39E-03	4.87E-03	2.32E-05	4.95E-07	2.73E-04	6.14E-06	1.78E-05	1.97E-04	-5.64E-05

**All use phase and disposal stages have been considered and only those with non-zero values have been reported.*

TRACI 2.2 V1.00 / US-Canadian 2008										
Impact category	**Unit**	**Total**	**A1-A3**	**A4**	**A5**	**B6**	**C2**	**C3**	**C4**	**D**
Ozone depletion	kg CFC-11 eq	6.66E-09	5.59E-09	3.71E-10	7.92E-12	4.69E-10	9.81E-11	5.14E-11	7.77E-11	-1.49E-10
Global warming	kg CO2 eq	5.36E-01	3.76E-01	2.57E-02	5.48E-04	9.34E-02	6.80E-03	7.52E-03	2.61E-02	-2.34E-02
Smog	kg O3 eq	6.80E-02	6.24E-02	1.82E-03	3.89E-05	2.56E-03	4.82E-04	4.36E-04	2.30E-04	-1.38E-03
Acidification	kg SO2 eq	2.16E-02	2.12E-02	8.17E-05	1.74E-06	2.57E-04	2.16E-05	3.25E-05	1.36E-05	-1.01E-04
Respiratory effects	kg PM2.5 eq	2.47E-03	2.22E-03	1.57E-05	3.35E-07	2.21E-04	4.15E-06	1.10E-05	1.81E-06	-3.42E-05
Freshwater eutrophication	kg P eq	7.12E-04	6.44E-04	1.85E-06	3.95E-08	3.66E-05	4.90E-07	2.18E-06	2.65E-05	-6.94E-06
Marine eutrophication	kg N eq	7.81E-04	7.17E-04	1.56E-05	3.33E-07	2.59E-05	4.12E-06	3.88E-06	1.45E-05	-1.22E-05

**All use phase and disposal stages have been considered and only those with non-zero values have been reported.*

EN 15804 + A2 (adapted) V1.03 / EF 3.1 normalization and weighting set										
Impact category	**Unit**	**Total**	**A1-A3**	**A4**	**A5**	**B6**	**C2**	**C3**	**C4**	**D**
Acidification	mol H+ eq	2.79E-02	2.74E-02	9.08E-05	1.94E-06	3.09E-04	2.40E-05	3.78E-05	1.37E-05	-1.17E-04
Climate change	kg CO2 eq	5.39E-01	3.77E-01	2.61E-02	5.56E-04	9.47E-02	6.89E-03	7.63E-03	2.62E-02	-2.66E-02
Climate change - Biogenic	kg CO2 eq	-2.47E-03	-2.95E-03	8.73E-06	1.86E-07	4.04E-04	2.31E-06	4.57E-05	2.48E-05	-3.00E-03
Climate change - Fossil	kg CO2 eq	5.41E-01	3.79E-01	2.61E-02	5.56E-04	9.40E-02	6.89E-03	7.57E-03	2.62E-02	-2.36E-02
Climate change - Land use and LU change	kg CO2 eq	8.84E-04	5.65E-04	1.18E-05	2.52E-07	2.86E-04	3.12E-06	1.60E-05	1.98E-06	-5.00E-05
Ecotoxicity, freshwater	CTUe	5.20E+01	5.09E+01	6.10E-02	1.30E-03	2.41E-01	1.61E-02	1.67E-02	8.29E-01	-5.16E-02
Ecotoxicity, freshwater - inorganics	CTUe	5.20E+01	5.08E+01	5.91E-02	1.26E-03	2.39E-01	1.56E-02	1.64E-02	8.29E-01	-5.05E-02
Ecotoxicity, freshwater - organics	CTUe	7.85E-02	7.33E-02	1.90E-03	4.04E-05	1.96E-03	5.01E-04	3.51E-04	4.71E-04	-1.10E-03
Particulate matter	disease inc.	6.22E-08	5.67E-08	2.55E-09	5.43E-11	1.71E-09	6.73E-10	3.51E-10	1.29E-10	-1.09E-09
Eutrophication, marine	kg N eq	1.20E-03	1.07E-03	2.92E-05	6.24E-07	5.77E-05	7.73E-06	7.66E-06	2.86E-05	-2.43E-05
Eutrophication, freshwater	kg P eq	1.46E-03	1.38E-03	2.83E-06	6.04E-08	7.92E-05	7.48E-07	3.65E-06	7.43E-07	-1.16E-05
Eutrophication, terrestrial	mol N eq	1.57E-02	1.47E-02	3.18E-04	6.78E-06	4.73E-04	8.41E-05	7.69E-05	4.12E-05	-2.41E-04
Human toxicity, cancer	CTUh	4.99E-09	4.96E-09	4.22E-12	9.00E-14	1.75E-11	1.12E-12	7.99E-13	4.90E-12	-2.59E-12
Human toxicity, cancer - inorganics	CTUh	4.91E-09	4.89E-09	1.82E-12	3.88E-14	1.20E-11	4.81E-13	5.14E-13	2.07E-12	-1.69E-12
Human toxicity, cancer - organics	CTUh	8.15E-11	6.98E-11	2.40E-12	5.12E-14	5.54E-12	6.34E-13	2.84E-13	2.83E-12	-8.93E-13
Human toxicity, non-cancer	CTUh	6.93E-07	6.92E-07	2.38E-10	5.08E-12	1.05E-09	6.29E-11	4.24E-11	9.80E-11	-1.29E-10
Human toxicity, non-cancer - inorganics	CTUh	6.73E-07	6.71E-07	2.23E-10	4.77E-12	1.00E-09	5.91E-11	4.10E-11	9.58E-11	-1.25E-10
Human toxicity, non-cancer - organics	CTUh	2.04E-08	2.04E-08	1.46E-11	3.11E-13	4.77E-11	3.85E-12	1.33E-12	2.17E-12	-3.50E-12

Ionising radiation	kBq U-235 eq	6.53E-02	2.72E-02	3.22E-04	6.87E-06	3.65E-02	8.51E-05	1.06E-03	9.60E-05	-3.33E-03
Land use	Pt	1.03E+01	9.54E+00	3.70E-01	7.88E-03	2.25E-01	9.77E-02	1.48E-02	1.86E-02	-4.46E-02
Ozone depletion	kg CFC11 eq	6.39E-09	5.36E-09	3.52E-10	7.51E-12	4.52E-10	9.31E-11	4.88E-11	7.50E-11	-1.40E-10
Photochemical ozone formation	kg NMVOC eq	5.46E-03	5.06E-03	1.30E-04	2.78E-06	1.89E-04	3.45E-05	2.27E-05	1.32E-05	-7.13E-05
Resource use, fossils	MJ	8.25E+00	5.94E+00	3.73E-01	7.96E-03	1.70E+00	9.86E-02	1.02E-01	2.90E-02	-3.18E-01
Resource use, minerals and metals	kg Sb eq	3.85E-04	3.84E-04	7.20E-08	1.54E-09	8.18E-07	1.90E-08	7.68E-09	1.06E-08	-9.34E-09
Water use	m3 depriv.	4.62E-01	4.29E-01	1.94E-03	4.15E-05	1.91E-02	5.14E-04	1.04E-03	1.02E-02	-3.26E-03

**All use phase and disposal stages have been considered and only those with non-zero values have been reported.*

EN15804+A2: Resource Use

Parameter	Unit	Total	A1-A3	A4	A5	B6	C2	C3	C4	D
PERE	MJ	1.28E+00	1.02E+00	5.16E-03	1.10E-04	2.85E-01	1.37E-03	1.36E-02	2.26E-03	-4.22E-02
PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	1.28E+00	1.02E+00	5.16E-03	1.10E-04	2.85E-01	1.37E-03	1.36E-02	2.26E-03	-4.22E-02
PENRE	MJ	8.47E+00	6.36E+00	3.97E-01	8.47E-03	1.80E+00	1.05E-01	1.08E-01	3.10E-02	-3.38E-01
PENRM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	8.47E+00	6.36E+00	3.97E-01	8.47E-03	1.80E+00	1.05E-01	1.08E-01	3.10E-02	-3.38E-01
SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m3	4.60E-01	4.33E-01	1.96E-03	4.17E-05	1.59E-02	5.17E-04	1.06E-03	1.01E-02	-3.33E-03

**All use phase and disposal stages have been considered and only those with non-zero values have been reported.*
***The abbreviations' detailed meaning in parameter column can be found at the end of LCA results session.*

EN15804+A2: Waste Categories and Output Flows

Parameter	Unit	Total	A1-A3	A4	A5	B6	C2	C3	C4	D
HWD	kg	1.26E-03	8.42E-04	1.12E-05	2.40E-07	9.04E-05	2.97E-06	4.00E-06	5.99E-04	-2.91E-04
NHWD	kg	1.45E-01	8.58E-02	3.12E-02	6.66E-04	5.52E-03	8.25E-03	1.97E-04	1.42E-02	-6.10E-04
RWD	kg	1.54E-05	7.14E-06	7.88E-08	1.68E-09	8.72E-06	2.08E-08	2.59E-07	2.45E-08	-8.11E-07
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	kg	3.17E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.17E-02	0.00E+00
MER	kg	1.30E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.30E-02	0.00E+00
EE	MJ	4.07E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.07E-01	0.00E+00

**All use phase and disposal stages have been considered and only those with non-zero values have been reported.*
***The abbreviations' detailed meaning in parameter column can be found at the end of LCA results session.*

Results shown below are for Cat6, U/UTP, 4/24, 1571A, CS34O Cables.

CML-IA baseline V3.11 / EU25

Impact category	Unit	Total	A1-A3	A4	A5	B6	C2	C3	C4	D
Abiotic depletion	kg Sb eq	1.79E-04	1.78E-04	4.59E-08	1.54E-09	8.20E-07	1.16E-08	4.70E-09	1.26E-08	-7.99E-09
Abiotic depletion (fossil fuels)	MJ	5.01E+00	3.46E+00	2.34E-01	7.85E-03	1.16E+00	5.91E-02	5.14E-02	3.32E-02	-2.23E-01
Global warming (GWP100a)	kg CO2 eq	3.74E-01	2.24E-01	1.65E-02	5.53E-04	9.40E-02	4.17E-03	4.60E-03	3.12E-02	-1.98E-02
Ozone layer depletion (ODP)	kg CFC-11 eq	3.59E-09	2.85E-09	1.80E-10	6.03E-12	3.96E-10	4.54E-11	2.46E-11	8.43E-11	-9.95E-11
Photochemical oxidation	kg C2H4 eq	4.73E-04	4.56E-04	2.54E-06	8.50E-08	1.22E-05	6.41E-07	7.25E-07	1.03E-06	-3.11E-06
Acidification	kg SO2 eq	1.17E-02	1.14E-02	4.43E-05	1.48E-06	2.62E-04	1.12E-05	1.90E-05	1.28E-05	-8.18E-05

Eutrophication	kg PO4--- eq	2.90E-03	2.32E-03	1.48E-05	4.95E-07	2.73E-04	3.73E-06	1.08E-05	2.81E-04	-4.75E-05

**All use phase and disposal stages have been considered and only those with non-zero values have been reported.*

TRACI 2.2 V1.00 / US-Canadian 2008

Impact category	Unit	Total	A1-A3	A4	A5	B6	C2	C3	C4	D
Ozone depletion	kg CFC-11 eq	4.52E-09	3.62E-09	2.36E-10	7.92E-12	4.69E-10	5.97E-11	3.13E-11	9.27E-11	-1.26E-10
Global warming	kg CO2 eq	3.72E-01	2.22E-01	1.64E-02	5.48E-04	9.34E-02	4.13E-03	4.57E-03	3.11E-02	-1.97E-02
Smog	kg O3 eq	3.57E-02	3.11E-02	1.16E-03	3.89E-05	2.56E-03	2.93E-04	2.65E-04	2.78E-04	-1.16E-03
Acidification	kg SO2 eq	1.03E-02	9.96E-03	5.20E-05	1.74E-06	2.57E-04	1.31E-05	1.98E-05	1.63E-05	-8.50E-05
Respiratory effects	kg PM2.5 eq	1.29E-03	1.05E-03	1.00E-05	3.35E-07	2.21E-04	2.52E-06	6.68E-06	2.17E-06	-2.88E-05
Freshwater eutrophication	kg P eq	3.83E-04	3.05E-04	1.18E-06	3.95E-08	3.66E-05	2.98E-07	1.33E-06	3.79E-05	-5.84E-06
Marine eutrophication	kg N eq	4.14E-04	3.52E-04	9.94E-06	3.33E-07	2.59E-05	2.51E-06	2.36E-06	2.03E-05	-1.03E-05

**All use phase and disposal stages have been considered and only those with non-zero values have been reported.*

EN 15804 + A2 (adapted) V1.03 / EF 3.1 normalization and weighting set

Impact category	Unit	Total	A1-A3	A4	A5	B6	C2	C3	C4	D
Acidification	mol H+ eq	1.33E-02	1.28E-02	5.79E-05	1.94E-06	3.09E-04	1.46E-05	2.30E-05	1.64E-05	-9.88E-05
Climate change	kg CO2 eq	3.72E-01	2.20E-01	1.66E-02	5.56E-04	9.47E-02	4.19E-03	4.64E-03	3.13E-02	-2.24E-02
Climate change - Biogenic	kg CO2 eq	-3.27E-03	-3.74E-03	5.56E-06	1.86E-07	4.04E-04	1.40E-06	2.78E-05	2.95E-05	-2.53E-03
Climate change - Fossil	kg CO2 eq	3.75E-01	2.24E-01	1.66E-02	5.56E-04	9.40E-02	4.19E-03	4.60E-03	3.12E-02	-1.99E-02
Climate change - Land use and LU change	kg CO2 eq	6.00E-04	2.93E-04	7.51E-06	2.52E-07	2.86E-04	1.90E-06	9.73E-06	2.37E-06	-4.21E-05
Ecotoxicity, freshwater	CTUe	4.07E+01	3.95E+01	3.89E-02	1.30E-03	2.41E-01	9.80E-03	1.02E-02	9.90E-01	-4.35E-02
Ecotoxicity, freshwater - inorganics	CTUe	4.07E+01	3.94E+01	3.77E-02	1.26E-03	2.39E-01	9.50E-03	9.96E-03	9.89E-01	-4.25E-02
Ecotoxicity, freshwater - organics	CTUe	4.49E-02	4.06E-02	1.21E-03	4.04E-05	1.96E-03	3.05E-04	2.14E-04	5.62E-04	-9.26E-04
Particulate matter	disease inc.	3.24E-08	2.83E-08	1.62E-09	5.43E-11	1.71E-09	4.09E-10	2.13E-10	1.57E-10	-9.20E-10
Eutrophication, marine	kg N eq	6.62E-04	5.36E-04	1.86E-05	6.24E-07	5.77E-05	4.70E-06	4.66E-06	4.00E-05	-2.04E-05
Eutrophication, freshwater	kg P eq	7.30E-04	6.45E-04	1.80E-06	6.04E-08	7.92E-05	4.55E-07	2.22E-06	8.81E-07	-9.78E-06
Eutrophication, terrestrial	mol N eq	8.03E-03	7.20E-03	2.03E-04	6.78E-06	4.73E-04	5.11E-05	4.67E-05	4.96E-05	-2.03E-04
Human toxicity, cancer	CTUh	3.29E-09	3.26E-09	2.69E-12	9.00E-14	1.75E-11	6.78E-13	4.86E-13	5.82E-12	-2.18E-12
Human toxicity, cancer - inorganics	CTUh	3.23E-09	3.22E-09	1.16E-12	3.88E-14	1.20E-11	2.93E-13	3.13E-13	2.46E-12	-1.43E-12
Human toxicity, cancer - organics	CTUh	5.44E-11	4.34E-11	1.53E-12	5.12E-14	5.54E-12	3.86E-13	1.73E-13	3.35E-12	-7.52E-13
Human toxicity, non-cancer	CTUh	5.18E-07	5.17E-07	1.52E-10	5.08E-12	1.05E-09	3.83E-11	2.58E-11	1.19E-10	-1.08E-10
Human toxicity, non-cancer - inorganics	CTUh	5.09E-07	5.07E-07	1.42E-10	4.77E-12	1.00E-09	3.59E-11	2.49E-11	1.16E-10	-1.05E-10
Human toxicity, non-cancer - organics	CTUh	9.53E-09	9.47E-09	9.28E-12	3.11E-13	4.77E-11	2.34E-12	8.11E-13	2.89E-12	-2.95E-12
Ionising radiation	kBq U-235 eq	5.17E-02	1.42E-02	2.05E-04	6.87E-06	3.65E-02	5.18E-05	6.46E-04	1.14E-04	-2.80E-03
Land use	Pt	5.33E+00	4.77E+00	2.35E-01	7.88E-03	2.25E-01	5.94E-02	8.99E-03	2.37E-02	-3.75E-02
Ozone depletion	kg CFC11 eq	4.35E-09	3.49E-09	2.24E-10	7.51E-12	4.52E-10	5.66E-11	2.97E-11	8.94E-11	-1.18E-10
Photochemical ozone formation	kg NMVOC eq	2.92E-03	2.60E-03	8.31E-05	2.78E-06	1.89E-04	2.10E-05	1.38E-05	1.60E-05	-6.00E-05
Resource use, fossils	MJ	5.77E+00	3.67E+00	2.38E-01	7.96E-03	1.70E+00	6.00E-02	6.18E-02	3.51E-02	-2.68E-01
Resource use, minerals and metals	kg Sb eq	1.79E-04	1.78E-04	4.59E-08	1.54E-09	8.18E-07	1.16E-08	4.67E-09	1.26E-08	-7.87E-09
Water use	m3 depriv.	2.35E-01	2.02E-01	1.24E-03	4.15E-05	1.91E-02	3.12E-04	6.31E-04	1.16E-02	-2.74E-03

**All use phase and disposal stages have been considered and only those with non-zero values have been reported.*

EN15804+A2: Resource Use

Parameter	Unit	Total	A1-A3	A4	A5	B6	C2	C3	C4	D
PERE	MJ	8.13E-01	5.48E-01	3.29E-03	1.10E-04	2.85E-01	8.30E-04	8.24E-03	2.69E-03	-3.55E-02

PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	8.13E-01	5.48E-01	3.29E-03	1.10E-04	2.85E-01	8.30E-04	8.24E-03	2.69E-03	-3.55E-02
PENRE	MJ	5.88E+00	3.93E+00	2.53E-01	8.47E-03	1.80E+00	6.38E-02	6.57E-02	3.74E-02	-2.84E-01
PENRM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	5.88E+00	3.93E+00	2.53E-01	8.47E-03	1.80E+00	6.38E-02	6.57E-02	3.74E-02	-2.84E-01
SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m3	2.31E-01	2.04E-01	1.25E-03	4.17E-05	1.59E-02	3.15E-04	6.46E-04	1.15E-02	-2.81E-03

**All use phase and disposal stages have been considered and only those with non-zero values have been reported.*
***The abbreviations' detailed meaning in parameter column can be found at the end of LCA results session.*

EN15804+A2: Waste Categories and Output Flows

Parameter	Unit	Total	A1-A3	A4	A5	B6	C2	C3	C4	D
HWD	kg	1.03E-03	4.64E-04	7.16E-06	2.40E-07	9.04E-05	1.81E-06	2.44E-06	7.07E-04	-2.45E-04
NHWD	kg	9.34E-02	4.30E-02	1.99E-02	6.66E-04	5.52E-03	5.02E-03	1.20E-04	1.97E-02	-5.13E-04
RWD	kg	1.19E-05	3.65E-06	5.02E-08	1.68E-09	8.72E-06	1.27E-08	1.58E-07	2.91E-08	-6.83E-07
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	kg	1.47E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.47E-02	0.00E+00
MER	kg	1.10E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.10E-02	0.00E+00
EE	MJ	3.43E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.43E-01	0.00E+00

**All use phase and disposal stages have been considered and only those with non-zero values have been reported.*
***The abbreviations' detailed meaning in parameter column can be found at the end of LCA results session.*

Results shown below are for Cat6A, F/UTP, 4/23, 1572A, 1592A Cables.

CML-IA baseline V3.11 / EU25

Impact category	Unit	Total	A1-A3	A4	A5	B6	C2	C3	C4	D
Abiotic depletion	kg Sb eq	2.32E-04	2.31E-04	7.78E-08	1.54E-09	9.90E-07	2.07E-08	8.40E-09	2.13E-08	-1.60E-08
Abiotic depletion (fossil fuels)	MJ	8.23E+00	6.17E+00	3.98E-01	7.85E-03	1.40E+00	1.06E-01	9.20E-02	5.56E-02	-4.46E-01
Global warming (GWP100a)	kg CO2 eq	5.91E-01	3.80E-01	2.80E-02	5.53E-04	1.13E-01	7.45E-03	8.23E-03	5.25E-02	-3.98E-02
Ozone layer depletion (ODP)	kg CFC-11 eq	1.50E-08	1.40E-08	3.05E-10	6.03E-12	4.78E-10	8.12E-11	4.40E-11	1.42E-10	-1.99E-10
Photochemical oxidation	kg C2H4 eq	6.55E-04	6.31E-04	4.31E-06	8.50E-08	1.47E-05	1.15E-06	1.30E-06	1.70E-06	-6.22E-06
Acidification	kg SO2 eq	1.56E-02	1.52E-02	7.52E-05	1.48E-06	3.16E-04	2.00E-05	3.41E-05	2.14E-05	-1.64E-04
Eutrophication	kg PO4--- eq	3.98E-03	3.17E-03	2.51E-05	4.95E-07	3.30E-04	6.68E-06	1.93E-05	4.33E-04	-9.52E-05

**All use phase and disposal stages have been considered and only those with non-zero values have been reported.*

TRACI 2.2 V1.00 / US-Canadian 2008

Impact category	Unit	Total	A1-A3	A4	A5	B6	C2	C3	C4	D
Ozone depletion	kg CFC-11 eq	1.97E-08	1.84E-08	4.01E-10	7.92E-12	5.67E-10	1.07E-10	5.59E-11	1.56E-10	-2.52E-10
Global warming	kg CO2 eq	5.86E-01	3.77E-01	2.78E-02	5.48E-04	1.13E-01	7.39E-03	8.18E-03	5.23E-02	-3.95E-02
Smog	kg O3 eq	5.25E-02	4.60E-02	1.97E-03	3.89E-05	3.09E-03	5.24E-04	4.74E-04	4.65E-04	-2.32E-03
Acidification	kg SO2 eq	1.38E-02	1.34E-02	8.83E-05	1.74E-06	3.10E-04	2.35E-05	3.53E-05	2.73E-05	-1.70E-04
Respiratory effects	kg PM2.5 eq	1.75E-03	1.45E-03	1.70E-05	3.35E-07	2.67E-04	4.51E-06	1.20E-05	3.65E-06	-5.78E-05
Freshwater eutrophication	kg P eq	5.22E-04	4.15E-04	2.00E-06	3.95E-08	4.42E-05	5.33E-07	2.38E-06	5.83E-05	-1.17E-05

Marine eutrophication	kg N eq	5.94E-04	5.05E-04	1.69E-05	3.33E-07	3.13E-05	4.49E-06	4.22E-06	3.16E-05	-2.06E-05

**All use phase and disposal stages have been considered and only those with non-zero values have been reported.*

EN 15804 + A2 (adapted) V1.03 / EF 3.1 normalization and weighting set

Impact category	Unit	Total	A1-A3	A4	A5	B6	C2	C3	C4	D
Acidification	mol H+ eq	1.77E-02	1.71E-02	9.82E-05	1.94E-06	3.73E-04	2.61E-05	4.11E-05	2.75E-05	-1.98E-04
Climate change	kg CO2 eq	5.90E-01	3.79E-01	2.82E-02	5.56E-04	1.14E-01	7.50E-03	8.30E-03	5.27E-02	-4.49E-02
Climate change - Biogenic	kg CO2 eq	-2.90E-03	-3.50E-03	9.44E-06	1.86E-07	4.87E-04	2.51E-06	4.97E-05	4.97E-05	-5.06E-03
Climate change - Fossil	kg CO2 eq	5.92E-01	3.81E-01	2.82E-02	5.56E-04	1.14E-01	7.49E-03	8.24E-03	5.26E-02	-3.98E-02
Climate change - Land use and LU change	kg CO2 eq	9.49E-04	5.67E-04	1.27E-05	2.52E-07	3.45E-04	3.39E-06	1.74E-05	3.99E-06	-8.43E-05
Ecotoxicity, freshwater	CTUe	4.49E+01	4.29E+01	6.59E-02	1.30E-03	2.91E-01	1.75E-02	1.82E-02	1.67E+00	-8.71E-02
Ecotoxicity, freshwater - inorganics	CTUe	4.49E+01	4.28E+01	6.39E-02	1.26E-03	2.88E-01	1.70E-02	1.78E-02	1.67E+00	-8.53E-02
Ecotoxicity, freshwater - organics	CTUe	7.52E-02	6.88E-02	2.05E-03	4.04E-05	2.37E-03	5.45E-04	3.82E-04	9.47E-04	-1.86E-03
Particulate matter	disease inc.	4.89E-08	4.27E-08	2.75E-09	5.43E-11	2.06E-09	7.32E-10	3.82E-10	2.62E-10	-1.84E-09
Eutrophication, marine	kg N eq	9.68E-04	7.87E-04	3.16E-05	6.24E-07	6.97E-05	8.41E-06	8.34E-06	6.21E-05	-4.09E-05
Eutrophication, freshwater	kg P eq	9.67E-04	8.62E-04	3.06E-06	6.04E-08	9.56E-05	8.14E-07	3.97E-06	1.49E-06	-1.96E-05
Eutrophication, terrestrial	mol N eq	1.15E-02	1.03E-02	3.44E-04	6.78E-06	5.71E-04	9.14E-05	8.36E-05	8.31E-05	-4.07E-04
Human toxicity, cancer	CTUh	3.78E-09	3.74E-09	4.56E-12	9.00E-14	2.12E-11	1.21E-12	8.69E-13	9.82E-12	-4.37E-12
Human toxicity, cancer - inorganics	CTUh	3.68E-09	3.66E-09	1.97E-12	3.88E-14	1.45E-11	5.24E-13	5.60E-13	4.15E-12	-2.86E-12
Human toxicity, cancer - organics	CTUh	9.91E-11	8.30E-11	2.59E-12	5.12E-14	6.69E-12	6.90E-13	3.09E-13	5.67E-12	-1.51E-12
Human toxicity, non-cancer	CTUh	5.64E-07	5.62E-07	2.57E-10	5.08E-12	1.27E-09	6.85E-11	4.61E-11	1.99E-10	-2.17E-10
Human toxicity, non-cancer - inorganics	CTUh	5.52E-07	5.50E-07	2.42E-10	4.77E-12	1.21E-09	6.43E-11	4.46E-11	1.94E-10	-2.11E-10
Human toxicity, non-cancer - organics	CTUh	1.24E-08	1.23E-08	1.57E-11	3.11E-13	5.76E-11	4.19E-12	1.45E-12	4.59E-12	-5.91E-12
Ionising radiation	kBq U-235 eq	6.69E-02	2.10E-02	3.48E-04	6.87E-06	4.41E-02	9.26E-05	1.16E-03	1.92E-04	-5.61E-03
Land use	Pt	7.07E+00	6.23E+00	4.00E-01	7.88E-03	2.72E-01	1.06E-01	1.61E-02	3.86E-02	-7.52E-02
Ozone depletion	kg CFC11 eq	2.08E-08	1.95E-08	3.81E-10	7.51E-12	5.45E-10	1.01E-10	5.31E-11	1.51E-10	-2.36E-10
Photochemical ozone formation	kg NMVOC eq	4.32E-03	3.86E-03	1.41E-04	2.78E-06	2.29E-04	3.75E-05	2.46E-05	2.67E-05	-1.20E-04
Resource use, fossils	MJ	9.22E+00	6.48E+00	4.03E-01	7.96E-03	2.05E+00	1.07E-01	1.11E-01	5.87E-02	-5.36E-01
Resource use, minerals and metals	kg Sb eq	2.32E-04	2.31E-04	7.78E-08	1.54E-09	9.88E-07	2.07E-08	8.35E-09	2.13E-08	-1.58E-08
Water use	m3 depriv.	3.31E-01	2.84E-01	2.10E-03	4.15E-05	2.31E-02	5.59E-04	1.13E-03	2.01E-02	-5.50E-03

**All use phase and disposal stages have been considered and only those with non-zero values have been reported.*

EN15804+A2: Resource Use

Parameter	Unit	Total	A1-A3	A4	A5	B6	C2	C3	C4	D
PERE	MJ	1.06E+00	7.64E-01	5.58E-03	1.10E-04	3.44E-01	1.49E-03	1.47E-02	4.54E-03	-7.12E-02
PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	1.06E+00	7.64E-01	5.58E-03	1.10E-04	3.44E-01	1.49E-03	1.47E-02	4.54E-03	-7.12E-02
PENRE	MJ	9.28E+00	6.95E+00	4.29E-01	8.47E-03	2.17E+00	1.14E-01	1.18E-01	6.26E-02	-5.70E-01
PENRM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	9.28E+00	6.95E+00	4.29E-01	8.47E-03	2.17E+00	1.14E-01	1.18E-01	6.26E-02	-5.70E-01
SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m3	3.24E-01	2.87E-01	2.12E-03	4.17E-05	1.92E-02	5.63E-04	1.16E-03	1.99E-02	-5.62E-03

**All use phase and disposal stages have been considered and only those with non-zero values have been reported.*
***The abbreviations' detailed meaning in parameter column can be found at the end of LCA results session.*

EN15804+A2: Waste Categories and Output Flows										
Parameter	**Unit**	**Total**	**A1-A3**	**A4**	**A5**	**B6**	**C2**	**C3**	**C4**	**D**
HWD	kg	1.55E-03	7.12E-04	1.22E-05	2.40E-07	1.09E-04	3.23E-06	4.36E-06	1.20E-03	-4.92E-04
NHWD	kg	1.39E-01	5.91E-02	3.38E-02	6.66E-04	6.66E-03	8.98E-03	2.14E-04	3.07E-02	-1.03E-03
RWD	kg	1.50E-05	5.37E-06	8.52E-08	1.68E-09	1.05E-05	2.27E-08	2.82E-07	4.91E-08	-1.37E-06
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	kg	1.90E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.90E-02	0.00E+00
MER	kg	2.20E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.20E-02	0.00E+00
EE	MJ	6.87E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.87E-01	0.00E+00

**All use phase and disposal stages have been considered and only those with non-zero values have been reported.*
***The abbreviations' detailed meaning in parameter column can be found at the end of LCA results session.*

Results shown below are for Cat6A, F/UTP & U/UTP, 4/23, CS41O Cables.

CML-IA baseline V3.11 / EU25										
Impact category	**Unit**	**Total**	**A1-A3**	**A4**	**A5**	**B6**	**C2**	**C3**	**C4**	**D**
Abiotic depletion	kg Sb eq	2.71E-04	2.70E-04	8.29E-08	1.54E-09	1.02E-06	2.22E-08	8.99E-09	2.23E-08	-1.61E-08
Abiotic depletion (fossil fuels)	MJ	9.21E+00	6.41E+00	4.24E-01	7.85E-03	2.11E+00	1.13E-01	9.85E-02	5.78E-02	-4.50E-01
Global warming (GWP100a)	kg CO2 eq	7.12E-01	3.97E-01	2.99E-02	5.53E-04	2.13E-01	7.98E-03	8.81E-03	5.48E-02	-4.01E-02
Ozone layer depletion (ODP)	kg CFC-11 eq	1.09E-08	9.64E-09	3.25E-10	6.03E-12	5.97E-10	8.70E-11	4.72E-11	1.48E-10	-2.01E-10
Photochemical oxidation	kg C2H4 eq	7.62E-04	7.17E-04	4.59E-06	8.50E-08	3.62E-05	1.23E-06	1.39E-06	1.75E-06	-6.28E-06
Acidification	kg SO2 eq	1.89E-02	1.77E-02	8.02E-05	1.48E-06	1.07E-03	2.14E-05	3.65E-05	2.23E-05	-1.65E-04
Eutrophication	kg PO4--- eq	4.56E-03	3.66E-03	2.67E-05	4.95E-07	4.13E-04	7.15E-06	2.07E-05	4.29E-04	-9.60E-05

**All use phase and disposal stages have been considered and only those with non-zero values have been reported.*

TRACI 2.2 V1.00 / US-Canadian 2008										
Impact category	**Unit**	**Total**	**A1-A3**	**A4**	**A5**	**B6**	**C2**	**C3**	**C4**	**D**
Ozone depletion	kg CFC-11 eq	1.41E-08	1.26E-08	4.27E-10	7.92E-12	6.84E-10	1.14E-10	5.99E-11	1.63E-10	-2.54E-10
Global warming	kg CO2 eq	7.07E-01	3.94E-01	2.96E-02	5.48E-04	2.12E-01	7.91E-03	8.76E-03	5.46E-02	-3.99E-02
Smog	kg O3 eq	7.18E-02	5.17E-02	2.10E-03	3.89E-05	1.64E-02	5.61E-04	5.07E-04	4.83E-04	-2.34E-03
Acidification	kg SO2 eq	1.69E-02	1.55E-02	9.41E-05	1.74E-06	1.14E-03	2.51E-05	3.78E-05	2.85E-05	-1.72E-04
Respiratory effects	kg PM2.5 eq	1.91E-03	1.67E-03	1.81E-05	3.35E-07	1.94E-04	4.83E-06	1.28E-05	3.80E-06	-5.83E-05
Freshwater eutrophication	kg P eq	5.90E-04	4.81E-04	2.13E-06	3.95E-08	4.64E-05	5.70E-07	2.54E-06	5.77E-05	-1.18E-05
Marine eutrophication	kg N eq	7.70E-04	5.71E-04	1.80E-05	3.33E-07	1.40E-04	4.80E-06	4.52E-06	3.15E-05	-2.08E-05

**All use phase and disposal stages have been considered and only those with non-zero values have been reported.*

EN 15804 + A2 (adapted) V1.03 / EF 3.1 normalization and weighting set										
Impact category	**Unit**	**Total**	**A1-A3**	**A4**	**A5**	**B6**	**C2**	**C3**	**C4**	**D**
Acidification	mol H+ eq	2.15E-02	2.00E-02	1.05E-04	1.94E-06	1.30E-03	2.80E-05	4.40E-05	2.86E-05	-2.00E-04
Climate change	kg CO2 eq	7.11E-01	3.95E-01	3.00E-02	5.56E-04	2.13E-01	8.03E-03	8.89E-03	5.49E-02	-4.53E-02
Climate change - Biogenic	kg CO2 eq	-4.65E-03	-3.41E-03	1.01E-05	1.86E-07	-1.35E-03	2.69E-06	5.32E-05	5.19E-05	-5.11E-03
Climate change - Fossil	kg CO2 eq	7.15E-01	3.98E-01	3.00E-02	5.56E-04	2.14E-01	8.02E-03	8.82E-03	5.49E-02	-4.01E-02
Climate change - Land use and LU change	kg CO2 eq	7.23E-04	5.89E-04	1.36E-05	2.52E-07	9.34E-05	3.63E-06	1.86E-05	4.16E-06	-8.50E-05
Ecotoxicity, freshwater	CTUe	1.83E+01	1.58E+01	7.03E-02	1.30E-03	6.81E-01	1.88E-02	1.97E-02	1.74E+00	-8.78E-02
Ecotoxicity, freshwater - inorganics	CTUe	1.83E+01	1.58E+01	6.81E-02	1.26E-03	6.78E-01	1.82E-02	1.93E-02	1.74E+00	-8.60E-02

Ecotoxicity, freshwater - organics	CTUe	7.81E-02	7.11E-02	2.18E-03	4.04E-05	2.81E-03	5.83E-04	4.09E-04	9.87E-04	-1.87E-03
Particulate matter	disease inc.	7.06E-08	4.85E-08	2.93E-09	5.43E-11	1.77E-08	7.84E-10	4.08E-10	2.71E-10	-1.86E-09
Eutrophication, marine	kg N eq	1.26E-03	8.84E-04	3.37E-05	6.24E-07	2.66E-04	9.00E-06	8.92E-06	6.19E-05	-4.13E-05
Eutrophication, freshwater	kg P eq	1.06E-03	1.00E-03	3.26E-06	6.04E-08	4.44E-05	8.71E-07	4.25E-06	1.55E-06	-1.98E-05
Eutrophication, terrestrial	mol N eq	1.52E-02	1.17E-02	3.66E-04	6.78E-06	2.85E-03	9.79E-05	8.95E-05	8.65E-05	-4.11E-04
Human toxicity, cancer	CTUh	2.33E-09	2.28E-09	4.86E-12	9.00E-14	2.83E-11	1.30E-12	9.31E-13	1.03E-11	-4.40E-12
Human toxicity, cancer - inorganics	CTUh	2.23E-09	2.20E-09	2.10E-12	3.88E-14	2.00E-11	5.60E-13	5.99E-13	4.34E-12	-2.88E-12
Human toxicity, cancer - organics	CTUh	9.65E-11	7.84E-11	2.76E-12	5.12E-14	8.32E-12	7.38E-13	3.32E-13	5.93E-12	-1.52E-12
Human toxicity, non-cancer	CTUh	2.32E-07	2.30E-07	2.74E-10	5.08E-12	1.90E-09	7.33E-11	4.93E-11	2.06E-10	-2.19E-10
Human toxicity, non-cancer - inorganics	CTUh	2.18E-07	2.15E-07	2.57E-10	4.77E-12	1.83E-09	6.88E-11	4.78E-11	2.01E-10	-2.13E-10
Human toxicity, non-cancer - organics	CTUh	1.44E-08	1.44E-08	1.68E-11	3.11E-13	6.98E-11	4.48E-12	1.55E-12	4.65E-12	-5.96E-12
Ionising radiation	kBq U-235 eq	4.16E-02	2.91E-02	3.71E-04	6.87E-06	1.06E-02	9.91E-05	1.24E-03	2.01E-04	-5.66E-03
Land use	Pt	8.19E+00	7.03E+00	4.26E-01	7.88E-03	5.54E-01	1.14E-01	1.72E-02	3.95E-02	-7.58E-02
Ozone depletion	kg CFC11 eq	1.44E-08	1.31E-08	4.06E-10	7.51E-12	6.39E-10	1.08E-10	5.69E-11	1.57E-10	-2.38E-10
Photochemical ozone formation	kg NMVOC eq	5.34E-03	4.34E-03	1.50E-04	2.78E-06	7.52E-04	4.01E-05	2.64E-05	2.77E-05	-1.21E-04
Resource use, fossils	MJ	9.88E+00	6.86E+00	4.30E-01	7.96E-03	2.29E+00	1.15E-01	1.18E-01	6.10E-02	-5.41E-01
Resource use, minerals and metals	kg Sb eq	2.71E-04	2.70E-04	8.29E-08	1.54E-09	1.02E-06	2.22E-08	8.94E-09	2.23E-08	-1.59E-08
Water use	m3 depriv.	3.94E-01	3.41E-01	2.24E-03	4.15E-05	2.82E-02	5.98E-04	1.21E-03	2.13E-02	-5.54E-03

**All use phase and disposal stages have been considered and only those with non-zero values have been reported.*

EN15804+A2: Resource Use

Parameter	Unit	Total	A1-A3	A4	A5	B6	C2	C3	C4	D
PERE	MJ	1.13E+00	8.67E-01	5.95E-03	1.10E-04	3.01E-01	1.59E-03	1.58E-02	4.74E-03	-7.18E-02
PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	1.13E+00	8.67E-01	5.95E-03	1.10E-04	3.01E-01	1.59E-03	1.58E-02	4.74E-03	-7.18E-02
PENRE	MJ	9.97E+00	7.34E+00	4.57E-01	8.47E-03	2.43E+00	1.22E-01	1.26E-01	6.51E-02	-5.75E-01
PENRM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	9.97E+00	7.34E+00	4.57E-01	8.47E-03	2.43E+00	1.22E-01	1.26E-01	6.51E-02	-5.75E-01
SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m3	3.91E-01	3.44E-01	2.25E-03	4.17E-05	2.78E-02	6.02E-04	1.24E-03	2.11E-02	-5.67E-03

**All use phase and disposal stages have been considered and only those with non-zero values have been reported.*
***The abbreviations' detailed meaning in parameter column can be found at the end of LCA results session.*

EN15804+A2: Waste Categories and Output Flows

Parameter	Unit	Total	A1-A3	A4	A5	B6	C2	C3	C4	D
HWD	kg	1.63E-03	7.41E-04	1.30E-05	2.40E-07	1.15E-04	3.46E-06	4.82E-06	1.25E-03	-4.96E-04
NHWD	kg	1.40E-01	5.67E-02	3.60E-02	6.66E-04	7.19E-03	9.61E-03	2.30E-04	3.06E-02	-1.04E-03
RWD	kg	9.17E-06	7.53E-06	9.08E-08	1.68E-09	2.55E-06	2.43E-08	3.02E-07	5.13E-08	-1.38E-06
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	kg	2.30E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.30E-02	0.00E+00
MER	kg	2.30E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.30E-02	0.00E+00
EE	MJ	7.18E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.18E-01	0.00E+00

**All use phase and disposal stages have been considered and only those with non-zero values have been reported.*
***The abbreviations' detailed meaning in parameter column can be found at the end of LCA results session.*

Disclaimer 1: The environmental impact category "Ionsing radiation" in "EN15804+A2 (adapted) V1.03 / EF 3.1 normalization and weighting set" 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.

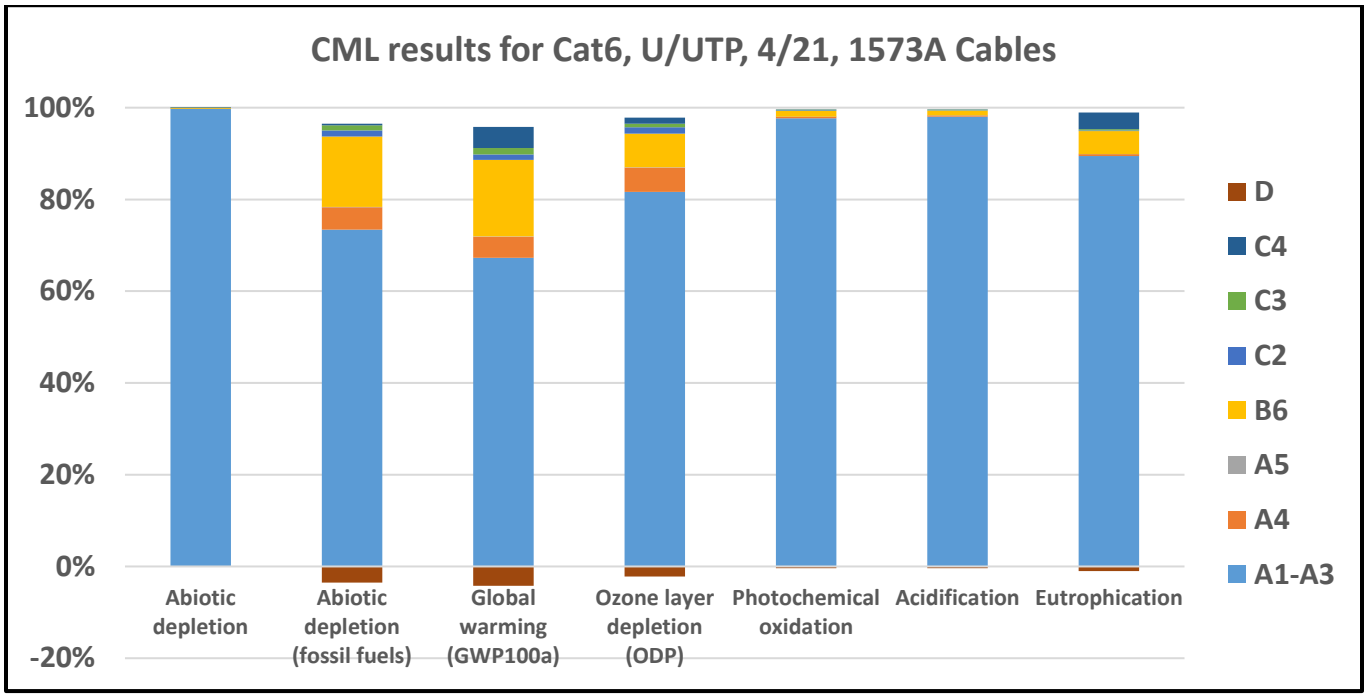
Disclaimer 2: The results of environmental impact indicators "Human toxicity, cancer & non-cancer" in "EN15804+A2 (adapted) V1.03 / EF 3.1 normalization and weighting set" and the results from "EN15804+A2: Resource Use" shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicators.

EN15804+A2: Resource Use (Abbreviation)	
PERE	Use of renwable primary energy excluding renewable primary energy resources used as raw materials
PERM	Use of renewable primary energy resources used as raw materials
PERT	Total use of renewable primary energy resources
PENRE	Use of non-renwable primary energy excluding renewable primary 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 material
RSF	Use of renewable secondary fuels
NRSF	Use of non-renewable secondary fuels
FW	Net use of fresh water

EN15804+A2: Waste Categories and Output Flows (Abbreviation)	
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

LCA Interpretation

The figures below show the CML result of 1573A cable group as representatives for Cat6 and Cat 6A Outdoor, Non-rated. The production stages A1-A3 are the dominant contributors across most environmental impact categories. This is due to the upstream production of raw materials used in the product, along with electricity usage in the manufacturing of parts. This highlights the importance of targeting the stages A1-A3 to effectively reduce global warming potential and most other environmental impacts. 100% copper recycling at the end-of-life stage significantly reduces the environmental impacts at stages C3 and C4.



Additional Environmental Information

Environmental and Health During Manufacturing

CommScope values employees' health, safety and well-being. To this end, we maintain a robust company-wide environment, health and safety (EHS) management system. This is an integrated program based on the requirements of the International Standards of ISO45001 and ISO14001. To support this integrated EHS management system, CommScope utilizes a web-based platform, the BSI Entropy™ tool. This tool supports the management of our EHS processes and operations at the corporate and facility level. All EHS management system records (policies, procedures, method statements, health and safety risk assessments, environmental aspect/impact assessments, legal requirements, permits, training, internal and external audits, incidents and implemented CAPA, KPIs, and other records related to EHS) are maintained and managed in Entropy. In addition, 90% of CommScope manufacturing facilities are certified according to the ISO14001 and ISO45001 standards. Our vision and commitments are detailed in our EHS Policy.

CommScope understands the need to address the environmental impacts of its products and services. CommScope engages product development teams in designing innovative and more sustainable solutions across a product's life cycle—from design and manufacturing to product use and end of life.

CommScope is committed to demonstrating a high standard of global product compliance practices. Through this commitment, we actively monitor global environmental trends and emerging regulatory requirements that may affect our products, operations, supply chain, and customer base. We are committed to be compliant with all applicable environmental product related legal and other requirements. To achieve this, we have a global organization comprising environmental specialists, engineers, and product compliance experts who are constantly ensuring our compliance status is maintained. We manage our compliance using a cross-functional approach with our engineers, designers, quality organization, supply chain organization, and production.

CommScope is committed to upholding the human rights of its employees. To ensure our employees are treated with dignity and respect, we follow a well-established Code of Ethics and Business Conduct and Labor Policy that align with recognized standards and guidelines from the International Labor Organization, the United Nations Global Compact, the UN Universal Declaration of Human Rights, SA8000 and applicable laws.

Environmental and Health During Installation

There is no harmful emissive potential. No damage to health or impairment is expected under normal use corresponding to the intended use of the product.

Extraordinary Effects

Fire

No extraordinary effects to the environment can be anticipated during exposure to fire.

Water

Contains no substances that have any impact on water in case of flood.

Mechanical Destruction

No danger to the environment can be anticipated during mechanical destruction.

Delayed Emissions

Global warming potential is calculated using the CML- IA Baseline 3.11, TRACI 2.2 and EN15804+A2 (adapted) 1.03 impact assessment methodologies. Delayed emissions are not considered.

Environmental Activities and Certifications

Our Sustainability Report details CommScope's efforts to operate the business ethically and with integrity; protect the environment; maintain the health, safety and well-being of our workforce; and support the communities in which we operate. To learn more, view our comprehensive Sustainability Report at https://www.commscope.com/corporate-responsibility-and-sustainability/.

CommScope maintains a variety of certifications based on the widely accepted industry standards:

- Quality Management System certification (ISO9001/TL9000)
- Environmental Management System certification (ISO14001)
- Health and Safety Management System certification (ISO45001)

These certificates can be downloaded from our company website:

https://www.commscope.com/corporate-responsibility-and-sustainability/philosophy/#certifications

Product sustainability certifications including EPDs and Health Product Declarations (HPDs) can be downloaded from our company website:

https://www.commscope.com/corporate-responsibility-and-sustainability/product-sustainability/certifications/

Further Information

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References

-	PCR	PEP ecopassport Program: Product Category Rules for Electrical, Electronic and HVAC-R Products, v4.0, 2021.
-	PSR	PEP ecopassport Program Product Specific Rules specific for Wires, Cables and Accessories, v4.0, 2022
-	LCA tool & Databases	Simapro Craft version 10.2.0.0 of LCA software & ecoinvent 3.11, Industry data 2.0 databases.
-	ISO 14025	ISO 14025:2011-10, Environmental labels and declarations — Type III environmental declarations — Principles and procedures.
-	ISO 14040	ISO 14040:2009-11, Environmental management — Life cycle assessment — Principles and framework.
-	ISO 14044	ISO 14044:2006-10, Environmental management — Life cycle assessment — Requirements and guidelines.
-	EN 15804 + A2	EN 15804:2012+A2:2019/AC:2021 - Sustainability of construction works - Environmental Product Declarations - Core rules for the product category of construction products
-	ASTM 2020	ASTM International General Program Instructions v8.0, April 29, 2020
-	Characterization Method	IPCC. 2021. Climate Change 2021. The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson, delmotte, V., et al] Cambridge University Press, Cambridge, UK and New York, NY, USA (http://www.ipcc.ch/report/ar6/wg1/).
-	Characterization Method	Hauschild M.Z., & Wenzel H. Environmental Assessment of Products. Springer, US, Vol. 2, 1998.
-	Characterization Method	Heijungs R., Guinée J.B., Huppes G., Lankreijer R.M., Udo de Haes H.A., Wegener Sleeswijk A. Environmental Life Cycle Assessment of Products: Guide and Backgrounds. CML. Leiden University, Leiden.
-	Characterization Method	Jenkin M.E., & Hayman G.D. Photochemical ozone creation potentials for oxygenated volatile organic compounds: sensitivity to variations in kinetic and mechanistic parameters. Atmospheric Environment. 1999, 33 (8) pp. 1275-1293.
-	Characterization Method	WMO. 1999. Scientific Assessment of Ozone Depletion: 1998, World Meteorological Organization Global Ozone Research and Monitoring Project - Report No. 44, WMO, Geneva.
-	Characterization Method	Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources using Environmental Chambers- version 1.2, January 2017.

Contact Information

Study Commissioner

COMMSCOPE®

For more information, visit our website at https://www.commscope.com/

- Contact customer support for product and technical questions at https://www.commscope.com/contact-us/
- Contact product compliance at productsustainability@commscope.com
- Contact Corporate Responsibility & Sustainability team for sustainability questions at sustainability@commscope.com

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