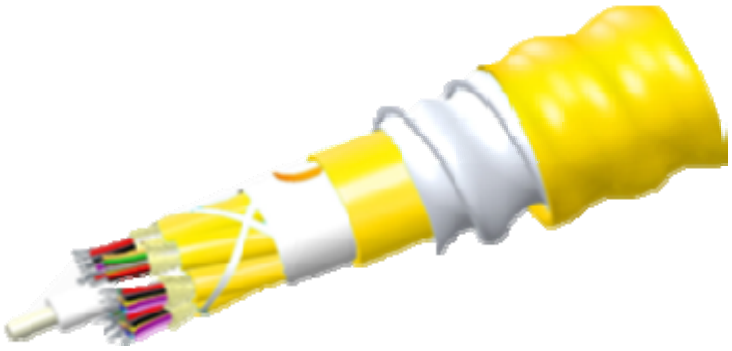
Environmental Product Declaration
CommScope® Indoor Premises Distribution Aluminum Interlocking Armored Communication and Data Wires and Cables



Distribution cables are color coded 900um tight buffered fibers for easy connectorization. Fiber counts above 24 are unitized for manageability. All fiber types are bend insensitive. Singlemode fiber is ITU-T G.657.A1 compliant as well as backwards compatible to G.652.D

COMMSCOPE®

At CommScope, we believe that corporate responsibility and sustainability means making decisions that have a positive long-term impact on our people, planet, and bottom line. Our company-wide sustainability mission is to enable faster, smarter, and more sustainable solutions while demonstrating the utmost respect for our human and natural resources. Innovative technology, intelligent engineering, and energy efficient design help us accomplish our mission and achieve our goals.

Sustainability is a central part of the solutions and practices we create to serve the ever-increasing need for connectivity, and for us, sustainability starts at home with our own people and products. Through responsible business practices, partnerships and technology innovation, we are advancing our industry while creating a more sustainable future.

ASTM INTERNATIONAL

This declaration is an environmental product declaration (EPD) in accordance with ISO 14025 and 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	EPD704
FUNCTIONAL UNIT OF DECLARED PRODUCT	CommScope® Indoor Premises Distribution Aluminum Interlocking Armored Communication and Data Wires and Cables Functional Unit = One optical fiber used to transmit communication signals on 1m at the wavelength of 1310 nm (for a single mode cable), for 30 years and at a rate of use of 70% in accordance with the standards in forcen for within a building for non-LAN applications.
REFERENCE PCR AND VERSION NUMBER	PEP ecopassport Program: Product Specific Rules for Wires, Cables and Accessories, v4.0, 2022.
DESCRIPTION OF PRODUCT APPLICATION/USE	CommScope cable products are primarily used in commercial and residential settings
PRODUCT RSL DESCRIPTION	30 Years
MARKETS OF APPLICABILITY	Global
DATE OF ISSUE	May 17, 2024
PERIOD OF VALIDITY	5 Years
EPD TYPE	Product Specific
DATASET VARIABILITY	N/A
EPD SCOPE	Cradle-to-Grave
YEAR(S) OF REPORTED PRIMARY DATA	2022
LCA SOFTWARE & VERSION NUMBER	LCA for Experts v10.7
LCI DATABASE(S) & VERSION NUMBER	Sphera & USLCI v2.0
LCIA METHODOLOGY & VERSION NUMBER	TRACI 2.1; CML 4.1
The sub-category PCR review was conducted by:	
This declaration was independently verified in accordance with ISO 14025: 2006. The "PEP ecopassport Program: Product Category Rules 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 the 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

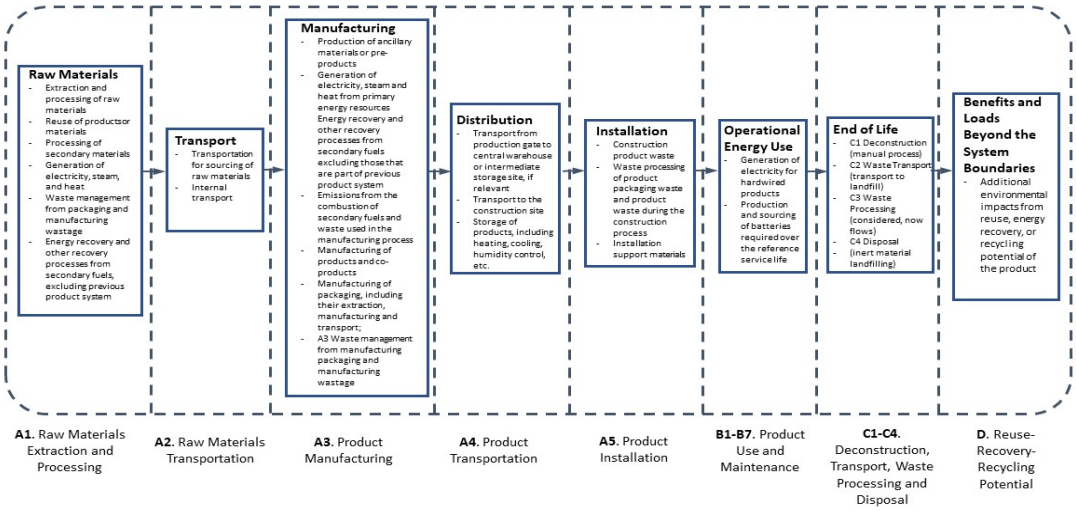
Description of Company/Organization

CommScope (NASDAQ: COMM) 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

Product Name: Indoor Premises Distribution Aluminum Interlocking Armored Communication and Data Wires and Cables
Product Characteristics:
- Indoor fiber cables are positioned for Data Center or Central Office applications
- Superior mechanical and optical performance with unmatched stability and quality
- Available Jacket Colors: Aqua, Black, Blue, Green, Orange, Red, Rose, Slate, Violet and Yellow

Flow Diagram



Manufacturer Specific EPD

This product-specific EPD was developed based on the cradle-to-grave (modules A1-D) life cycle assessment. The EPD accounts for raw material extraction and processing, transport, product manufacturing, distribution, installation, use, maintenance, disposal, and potential benefits and loads following the end of life disposal. Manufacturing data were gathered directly from company personnel. For EPDs with product groups, an impact assessment was completed for each product and the highest impacts were reported as representations of the product group. The rest of the products in each group are represented through scaling factor tables and can be independently calculated.

Application

Indoor fiber riser distribution cables positioned for Data Center or Central Office applications

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 average composition of a CommScope Indoor Premises Distribution Aluminum Interlocking Armored Fiber Optic cable is as follows:

Percentage in mass (%)	
Material	**Maximum**
Colorant	1.45%
Conductor	1.07%
Cross Filler	0.00%
Yarn	4.34%
Rod	0.03%
Jacketing	72.79%
Rip Cord	0.19%
Tape	19.53%
Other	0.60%
Total	100.00%

Technical Details

For the declared product, the following technical data in the delivery status must be provided with reference to the test standard:

Technical Data	
General Specifications	
Cable Type	Distribution
Construction Type	Armored
Jacket Marking	Feet
Subunit Type	Gel - free
Mechanical Specifications	
Compression Test Method	FOTP-41 | IEC 60794-1 E3
Flex	25 cycles
Flex Test Method	FOTP-104 | IEC 60794-1 E6
Impact Test Method	FOTP-25 | IEC 60794-1 E4
Strain Test Method	FOTP-33 | IEC 60794-1 E1
Twist	10 cycles
Twist Test Method	FOTP-85 | IEC 60794-1 E7
Environmental Specifications	
Installation Temperature	-20 °C to +70 °C (-4 °F to +158 °F)
Operating Temperature	-20 °C to +70 °C (-4 °F to +158 °F)
Storage Temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Cable Qualification Standards	ANSI/ICEA S-83-596 | Telcordia GR-409
Environmental Space	Riser
Flame Test Listing	NEC OFCR (ETL) and c(ETL)
Flame Test Method	UL 1666
Environmental Test Specifications	
Heat Age	-20 °C to +85 °C (-4 °F to +185 °F)
Heat Age Test Method	IEC 60794-1 F9
Low High Bend	-20 °C to +70 °C (-4 °F to +158 °F)
Low High Bend Test Method	FOTP-37 | IEC 60794-1 E11
Temperature Cycle	-20 °C to +70 °C (-4 °F to +158 °F)
Temperature Cycle Test Method	FOTP-3 | IEC 60794-1 F1

Placing on the Market / Application Rules

FOTP; IEC 60794; ANSI/ICEA S-83-596; Telcordia GR-409; NEC OFNR (ETL) and c(ETL); UL 1666

Properties of Declared Product as Shipped

CommScope Indoor Premises Distribution Aluminum Interlocking Armored Fiber Optic 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 optical fiber used to transmit communication signals on 1m at the wavelength of 1310 nm (for a single mode cable), for 30 years and at a rate of use of 70% in accordance with the standards in forcen for within a building for non-LAN applications.

Name	Value	Unit
Functional unit	One optical fiber used to transmit communication signals on 1m at the wavelength of 1310 nm (for a single mode cable), for 30 years and at a rate of use of 70% in accordance with the standards in forcen for within a building for non-LAN applications.	
Maximum Mass	6.0E-03	kg
Conversion factor to 1 kg	165.55	-

System Boundary

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

Product Stage			Construction Process Stage		Use Stage							End of Life Stage*				Benefits and Loads Beyond the System Boundaries
Raw material supply	Transport	Manufacturing	Transport from gate to the site	Construction/ installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction /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	X	X	X	X	X	X	X	X	X	X	X	X

Description of the System Boundary Stages Corresponding to the PCR

(X = Included; MND = Module Not Declared)

*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.

Reference Service Life

The reference service life of a properly installed CommScopeIndoor Premises Distribution Aluminum Interlocking Armored Fiber Optic cable is 30 years.

Allocation

Allocation was determined on a per meter basis.

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 that a documented assumption is admissible.

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 Sphera 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 the geographic and technological coverage and are a recent vintage (i.e. less than ten years old). The data used for primary data are based on direct information sources of the manufacturers. 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 2022.

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 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

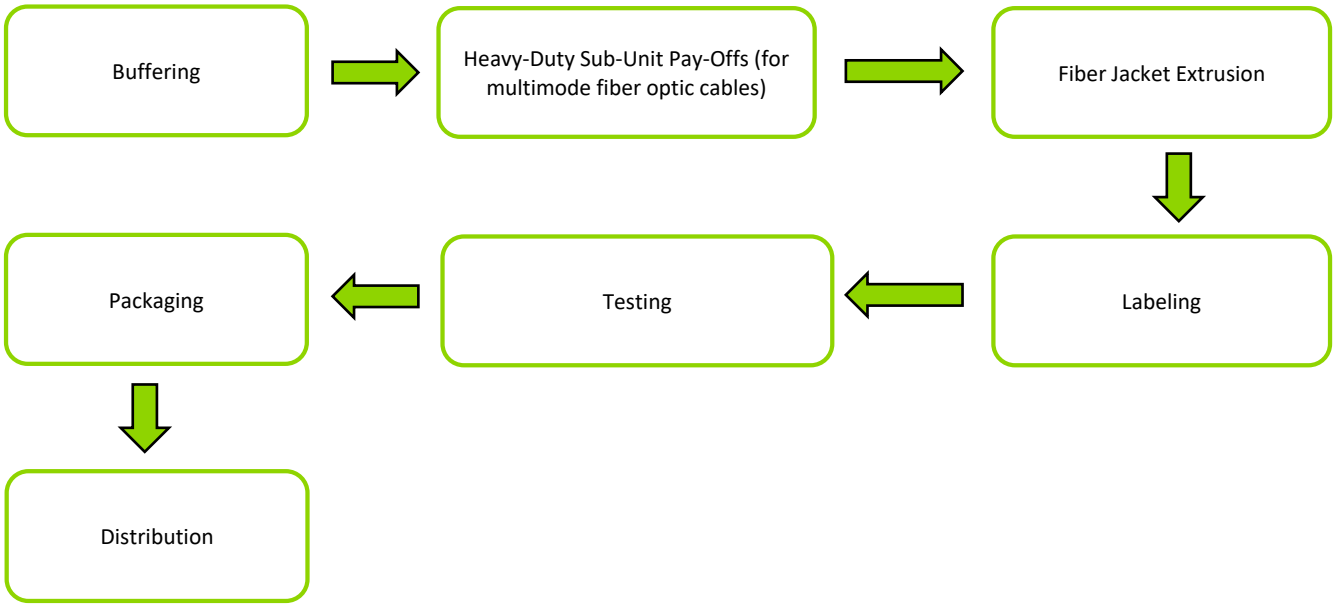
Background data

For life cycle modeling of the considered products, the LCA for Experts Software System for Life Cycle Engineering, developed by Sphera, is used. The Sphera database contains consistent and documented datasets which are documented online. To ensure comparability of results in the LCA, the basic data of the Sphera database were used for energy, transportation, and auxiliary materials.

Manufacturing

Bray, Ireland; North Wales; and the Claremont, North Carolina plants produce fiber optic cables for CommScope. The manufacturing process begins with fiber raw materials such as glass and plastics (low smoke zero halogen and ethyl vinyl acetate) into the tight buffer extrusion line where the fibers are buffered. After buffering, the tight buffered fiberglass from single mode fiber optic cables is sent to the fiber jacket extrusion line where the fibers are stranded together and wrapped with aramid and an outer jacket. A similar process is true for the multimode fiber optic cables, except, before being sent to the fiber jacket extrusion line, the tight buffered fiberglass is sent to the heavy-duty sub-unit pay-offs process where pay-off systems are used to unwind wire rods to supply wire continuously. Alternatively, if aramid/Kevlar and GRP rods are used as raw material inputs, they are sent directly to the fiber jacket extrusion line.

Once the fibers have undergone the extrusion processes, the fibers are then sent to be labeled via the printing process using printing ink and solvent. Following the printing process, the cables are tested in a laboratory before being sent to be packaged using wooden reels, pallets, and plastic covers. Once packaged, the fiber optic cables are shipped to the appropriate consumers.



Packaging

All packaging is fully recyclable. The packaging material is composed primarily of wood, with plastic and strapping materials used for individual product packaging.

Quantity (% By Weight)	
Material	**Maximum**
Paper	0.03%
Metal	0.00%
Plastic	2.91%
Wood	97.06%
Total	100.00%

Transformation

Truck Transport to Building Site (A4)		
Name	**Max**	**Unit**
Fuel type	Diesel	
Liters of fuel	38	l/100km
Transport distance	3500	km
Capacity utilization (including empty runs)	85	%
Weight of products transported	-	kg

Product Installation

CommScope Indoor Premises Distribution Aluminum Interlocking Armored Fiber optic cables are distributed through and installed by trained installation technicians adhering to local/national standards and requirements. Installation accounts for the 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	**Max**	**Unit**
Auxiliary materials	-	kg
Water consumption	-	m^3
Other resources	-	kg
Electricity consumption	-	kWh
Other energy carriers	-	MJ
Product loss per functional unit	4.10E-06	kg
Waste materials at construction site	4.10E-06	kg
Output substance (recycle)	4.64E-05	kg
Output substance (landfill)	1.34E-04	kg
Output substance (incineration)	1.22E-04	kg
Packaging waste (recycle)	0.00E+00	kg
Packaging waste (landfill)	1.00E-06	kg
Packaging waste (incineration)	1.00E-06	kg
Direct emissions to ambient air*, soil, and water	6.76E-09	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 instructured 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, 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. This is a single mode cable operating under the 10GBASE-LR protocol.

Operational Energy Use (B6)		
Name	**Max**	**Unit**
Ancillary materials specified by material	-	kg
Net fresh water consumption	-	m^3
Electricity consumption	1.89E-04	kWh
Power output of equipment	-	kWh
Characteristic performance	-	-
Further assumptions for scenario development	-	-

Maximum Loss Values per Cable Type		
Cable Type	**Protocol**	**Power Loss (µW/m)**
Single Mode	100BASE-LX	0.09
	1000BASE-LX	
	10GBASE-LR	

Disposal

The product can be mechanically dissembled to separate the different materials. The majority of components are disposed of through waste incineration with energy recovery or landfilled, in accordance with the PCR.

End of life (C1-C4)		
Name	**Max**	**Unit**
Collected separately	9.28E-04	kg
Collected as mixed construction waste	5.11E-03	kg
Reuse	0.00E+00	kg
Recycling	9.28E-04	kg
Landfilling	2.67E-03	kg
Incineration with energy recovery	2.44E-03	kg
Energy conversion	25.00	%
Removals of biogenic carbon	-	kg

Re-use Phase

Re-use of the product is not common.

Re-Use, recovery, And/Or Recycling Potential (D)		
Name	**Max**	**Unit**
Net energy benefit from energy recovery from waste treatment declared as exported energy in C3 (R>0.6)	0.00	MJ
Net energy benefit from thermal energy due to treatment of waste declared as exported energy in C4 (R<0.6)	0.00	MJ
Net energy benefit from material flow declared in C3 for energy recovery	0.02	MJ
Process and conversion efficiencies	-	
Further assumptions for scenario development (e.g. further processing technologies, assumptions on correction factors);	-	

LCA Results - Maximum Impact

Results shown below were calculated using TRACI 2.1 Methodology.

TRACI 2.1 Impact Assessment

Parameter	Parameter	Unit	A1-A3	A4	A5	B6	C2	C3	C4	D	Total
GWP	Global warming potential	kg CO_2-Eq.	2.11E-02	1.96E-03	1.19E-03	6.90E-04	5.60E-04	5.93E-03	1.07E-04	-6.35E-03	2.52E-02
ODP	Depletion potential of the stratospheric ozone layer	kg CFC-11 Eq.	8.68E-13	7.43E-14	4.81E-14	3.35E-19	2.12E-14	3.74E-18	3.53E-18	-1.76E-14	9.94E-13
AP Air	Acidification potential for air emissions	kg SO_2-Eq.	4.86E-05	1.18E-05	3.24E-06	9.17E-07	3.37E-06	1.76E-06	4.79E-07	-2.09E-05	4.93E-05
EP	Eutrophication potential	kg N-Eq.	2.43E-06	6.53E-07	1.67E-07	6.27E-08	1.86E-07	4.99E-08	6.41E-07	-6.81E-07	3.51E-06
SP	Smog formation potential	kg O_3-Eq.	7.66E-04	3.24E-04	6.02E-05	1.18E-05	9.24E-05	1.21E-05	8.47E-06	-2.09E-04	1.07E-03
FFD	Fossil Fuel Depletion	MJ-surplus	4.96E-02	3.47E-03	2.73E-03	7.01E-06	9.93E-04	2.74E-04	2.06E-04	-6.60E-03	5.07E-02

**Stages B1 through B7 and C1 through C4 have been considered and only those with non-zero values have been reported*

Results shown below were calculated using CML 2001 - April 2013 Methodology.

CML 4.1 Impact Assessment

Parameter	Parameter	Unit	A1-A3	A4	A5	B6	C2	C3	C4	D	Total
GWP	Global warming potential	kg CO_2-Eq.	2.13E-02	1.97E-03	1.21E-03	7.15E-04	5.62E-04	5.93E-03	1.08E-04	-6.33E-03	2.54E-02
ODP	Depletion potential of the stratospheric ozone layer	kg CFC-11 Eq.	8.82E-13	7.43E-14	4.90E-14	1.90E-17	2.12E-14	2.17E-16	2.06E-16	-2.42E-14	1.00E-12
AP Air	Acidification potential for air emissions	kg SO_2-Eq.	4.64E-05	9.65E-06	2.99E-06	9.10E-07	2.76E-06	1.47E-06	4.42E-07	-2.18E-05	4.29E-05
EP	Eutrophication potential	kg$(PO_4)^3$-Eq.	5.40E-06	1.72E-06	3.89E-07	8.33E-08	4.92E-07	1.29E-07	6.55E-07	-1.56E-06	7.31E-06
POCP	Formation potential of tropospheric ozone photochemical oxidants	kg ethane-Eq.	5.54E-06	1.13E-06	3.52E-07	5.10E-08	3.23E-07	4.78E-08	6.09E-09	-1.24E-06	6.21E-06
ADPE	Abiotic depletion potential for non-fossil resources	kg Sb-Eq.	5.32E-08	8.13E-13	2.67E-09	1.49E-12	2.33E-13	7.15E-11	4.81E-11	-2.26E-09	5.37E-08
ADPF	Abiotic depletion potential for fossil resources	MJ	3.89E-01	2.50E-02	2.13E-02	6.72E-05	7.15E-03	2.64E-03	1.60E-03	-7.15E-02	3.75E-01

**Stages B1 through B7 and C1 through C4 have been considered and only those with non-zero values have been reported*

Results below contain the resource use throughout the life cycle of the product.

EN15804+A2

Parameter	Parameter	Unit	A1-A3	A4	A5	B6	C2	C3	C4	D	Total
GWP-total	Climate change - total	kg CO_2-Eq.	2.18E-02	2.01E-03	1.24E-03	7.15E-04	5.74E-04	5.94E-03	1.11E-04	-6.44E-03	2.60E-02
GWP-fossil	Climate change - fossil	kg CO_2-Eq.	3.14E+00	2.89E-01	1.78E-01	9.95E-02	8.26E-02	8.55E-01	1.58E-02	-9.30E-01	3.73E+00
GWP-biogenic	Climate change - biogenic	kg CO_2-Eq.	-2.04E-03	0.00E+00	4.22E-04	3.86E-03	0.00E+00	3.70E-05	1.33E-04	2.89E-03	5.30E-03
GWP-luluc	Climate change - land use and land use change	kg CO_2-Eq.	7.68E-04	0.00E+00	3.97E-05	7.25E-08	0.00E+00	5.99E-06	6.74E-06	-1.12E-04	7.09E-04
ODP	Ozone depletion	kg CFC-11 Eq.	9.55E-11	7.35E-12	5.25E-12	2.32E-15	2.10E-12	2.65E-14	2.52E-14	-2.76E-12	1.08E-10
AP	Acidification	mol H^+ Eq.	7.82E-03	1.88E-03	5.21E-04	1.45E-04	5.37E-04	1.41E-04	8.00E-05	-3.58E-03	7.54E-03
EP-freshwater	Eutrophication aquatic freshwater	kg P Eq.	2.88E-06	8.07E-08	1.61E-07	1.48E-09	2.31E-08	1.35E-08	1.30E-05	-4.55E-07	1.57E-05
EP-marine	Eutrophication aquatic marine	kg N Eq.	1.69E-03	7.23E-04	1.34E-04	2.74E-05	2.07E-04	3.00E-05	2.15E-05	-4.86E-04	2.35E-03
EP-terrestrial	Eutrophication terrestrial	mol N Eq.	1.89E-02	7.89E-03	1.48E-03	3.00E-04	2.25E-03	6.37E-04	2.36E-04	-5.28E-03	2.65E-02
POCP	Photochemical ozone formation	NMVOC Eq.	6.72E-03	2.13E-03	4.81E-04	7.64E-05	6.09E-04	8.24E-05	5.95E-05	-1.51E-03	8.65E-03
ADP-minerals&metals** *	Depletion of abiotic resources - minerals and metals	kg Sb Eq.	1.32E-06	0.00E+00	6.66E-08	1.78E-10	0.00E+00	5.72E-09	4.09E-09	-1.82E-07	1.22E-06
ADP-fossil**	Depletion of abiotic resources - fossil fuels	mol N Eq.	5.79E+01	3.63E+00	3.16E+00	1.40E-02	1.04E+00	3.96E-01	2.28E-01	-1.15E+01	5.49E+01
WDP**	Water use	m^3 world Eq. deprived	5.01E-01	0.00E+00	2.65E-02	2.31E-02	0.00E+00	6.72E-02	9.95E-04	-1.76E-01	4.43E-01
PM	Particulate matter emissions	Disease incidence	1.01E-07	7.41E-09	5.72E-09	1.32E-09	2.12E-09	1.59E-09	8.42E-10	-5.47E-08	6.54E-08
IRP	Ionizing radiation, human health	kBq U235 Eq.	8.91E-02	6.39E-20	4.49E-03	1.33E-02	1.82E-20	6.26E-04	1.94E-04	-4.02E-02	6.75E-02
ETP-fw	Ecotoxicity (freshwater)	CTUe	2.61E+01	1.53E+01	2.31E+00	1.48E-01	4.38E+00	3.08E-01	8.27E-01	-4.44E+00	4.49E+01
HTP-c	Human toxicity, cancer effects	CTUh	9.20E-10	7.65E-11	5.20E-11	5.53E-12	2.18E-11	1.24E-11	1.30E-11	-3.55E-10	7.46E-10
HTP-nc	Human toxicity, non-cancer effects	CTUh	3.48E-08	7.22E-09	2.32E-09	1.95E-10	2.06E-09	1.34E-09	1.41E-09	-1.55E-08	3.39E-08
SQP	Land use related impacts/Soil quality	dimensionless	1.94E+00	0.00E+00	1.01E-01	2.66E-03	0.00E+00	3.29E-02	2.78E-02	-8.43E-01	1.26E+00

**Stages B1 through B7 and C1 through C4 have been considered and only those with non-zero values have been reported*

***The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or there is limited experienced with the indicator.*

Results below contain the resource use throughout the life cycle of the product.

Resource Use

Parameter	Parameter	Unit	A1-A3	A4	A5	B6	C2	C3	C4	D	Total
RPR_E	Renewable primary energy as energy carrier	MJ	4.82E-02	0.00E+00	2.43E-03	2.19E-03	0.00E+00	1.51E-04	1.57E-04	-3.08E-02	2.23E-02
RPR_M	Renewable primary energy resources as material utilization	MJ	1.95E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-06
$NRPR_E$	Nonrenewable primary energy as energy carrier	MJ	4.08E-01	2.52E-02	2.22E-02	9.79E-05	7.22E-03	2.76E-03	1.63E-03	-7.99E-02	3.87E-01
$NRPR_M$	Nonrenewable primary energy as material utilization	MJ	9.40E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.40E-02
SM	Use of secondary material	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	Use of renewable secondary fuels	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	Use of nonrenewable secondary fuels	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
RE	Energy recovered from disposed waste	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-02	1.17E-02
FW	Use of net fresh water	m^3	1.83E-04	0.00E+00	9.38E-06	4.85E-06	0.00E+00	1.09E-05	2.42E-07	-9.38E-05	1.14E-04

**Stages B1 through B7 and C1 through C4 have been considered and only those with non-zero values have been reported*

Results below contain the output flows and wastes throughout the life cycle of the product.

Output Flows and Waste Categories

Parameter	Parameter	Unit	A1-A3	A4	A5	B6	C2	C3	C4	D	Total
HWD	Hazardous waste disposed	kg	2.17E-08	0.00E+00	1.09E-09	4.12E-15	0.00E+00	1.40E-13	6.22E-14	-5.91E-10	2.22E-08
NHWD	Non-hazardous waste disposed	kg	2.28E-03	0.00E+00	3.65E-04	1.08E-06	0.00E+00	5.50E-04	2.78E-03	-1.49E-03	4.49E-03
HLRW	High-level radioactive waste	kg	7.29E-06	0.00E+00	3.67E-07	1.26E-08	0.00E+00	5.01E-08	1.45E-08	-3.35E-06	4.39E-06
ILLRW	Intermediate- and low-level radioactive waste	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
CRU	Components for re-use	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
MR	Materials for recycling	kg	2.85E-07	0.00E+00	1.17E-08	0.00E+00	0.00E+00	0.00E+00	9.28E-04	0.00E+00	9.28E-04
MER	Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.44E-03	2.44E-03
EE	Recovered energy exported from system	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.17E-02	1.17E-02

**Stages B1 through B7 and C1 through C4 have been considered and only those with non-zero values have been reported*

Results below contain direct greenhouse gas emissions and removals throughout the life cycle of the product.

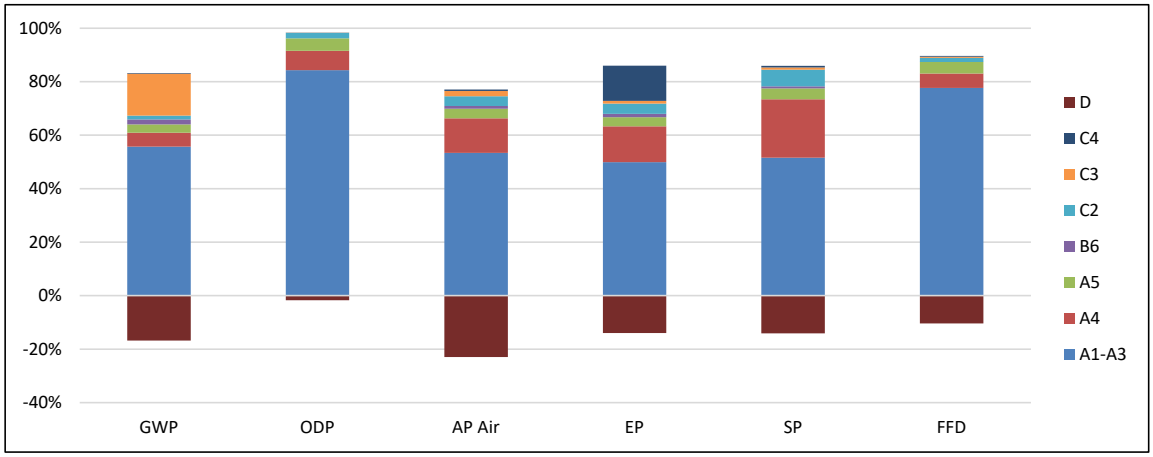
Resource Use

Parameter	Parameter	Unit	A1-A3	A4	A5	B6	C2	C3	C4	D	Total
BCRP	Biogenic Carbon Removal from Product	kg CO_2	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
BCEP	Biogenic Carbon Emissions from Product	kg CO_2	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
BCRK	Biogenic Carbon Removal from Packaging	kg CO_2	9.74E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.74E-07
BCEK	Biogenic Carbon Emissions from Packaging	kg CO_2	0.00E+00	0.00E+00	9.74E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.74E-07
BCEW	Biogenic Carbon Emissions from Combustion of Waste from Renewable Sources Used in Production Process	kg CO_2	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
CCE	Calcination Carbon Emissions	kg CO_2	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
CCR	Carbonation Carbon Removal	kg CO_2	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
CWNR	Carbon Emissions from Combustion of Waste from Non-renewable Sources Used in Production Process	kg CO_2	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

**Stages B1 through B7 and C1 through C4 have been considered and only those with non-zero values have been reported*

LCA Interpretation - Maximum Impact

The production life cycle stage (A1-A3) dominate the impacts across all impact categories. This is due to the upstream production of raw materials used in the product, along with electricity use in the manufacturing of the product. The reuse, recovery, and recycling potential (D) stage is a negative value and accounts for the benefit of energy recovery during incineration, and the benefit from recycling material at the end-of-life for a product.



Scaling Factor Tables

For EPDs with product groups, an impact assessment was completed for each product and the highest impacts were reported as representations of the product group. The rest of the products in each group are represented through scaling factor tables and can be independently calculated.

	A1 - A3							A4	A5	B6	C2 - D
Cable Product Name	GWP	ODP	AP	EP	PCOP	FFD/ADP	Resources				
R-006-DZ-8W-FSUYL	28.49	18.05	35.83	27.89	28.16	21.54	22.32	23.32	23.32	6.00	23.32
R-012-DZ-8W-FSUYL	29.61	20.02	36.60	29.12	29.28	23.01	23.97	24.87	24.87	12.00	24.87
R-024-DZ-8W-FSUYL	38.10	27.20	46.41	37.45	37.82	30.50	31.75	32.79	32.79	24.00	32.79
R-036-DZ-8W-FMUYL	71.00	58.90	82.37	70.59	70.81	61.33	64.78	66.36	66.36	36.00	66.36
R-048-DZ-8W-FMUYL	77.63	68.04	86.88	77.37	77.44	69.72	72.76	73.99	73.99	48.00	73.99
R-072-DZ-8W-FMUYL	98.98	95.68	104.04	100.00	98.88	95.35	99.52	100.41	100.41	72.00	100.41
R-096-DZ-8W-FMUYL	127.49	133.15	128.92	129.50	127.42	127.23	134.05	133.71	133.71	96.00	133.71
R-144-DZ-8W-FMUYL	144.00	144.00	144.00	144.00	144.00	144.00	144.00	144.00	144.00	144.00	144.00
R-006-DZ-5K-FSUAQ	28.39	17.86	35.77	27.79	28.07	21.42	22.16	23.17	23.17	6.00	23.17
R-012-DZ-5K-FSUAQ	29.61	20.02	36.60	29.12	29.28	23.01	23.97	24.87	24.87	12.00	24.87
R-024-DZ-5K-FSUAQ	38.10	27.20	46.41	37.45	37.82	30.50	31.75	32.79	32.79	24.00	32.79
R-048-DZ-5K-FMUAQ	77.63	68.04	86.88	77.37	77.44	69.72	72.76	73.99	73.99	48.00	73.99
R-006-DZ-5L-FSUAQ	28.39	17.86	35.77	27.79	28.07	21.42	22.16	23.17	23.17	6.00	23.17
R-012-DZ-5L-FSUAQ	29.61	20.02	36.60	29.12	29.28	23.01	23.97	24.87	24.87	12.00	24.87
R-024-DZ-5L-FSUAQ	38.10	27.20	46.41	37.45	37.82	30.50	31.75	32.79	32.79	24.00	32.79
R-048-DZ-5L-FMUAQ	77.63	68.04	86.88	77.37	77.44	69.72	72.76	73.99	73.99	48.00	73.99

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, all CommScope major manufacturing facilities are certified according to the ISO14001 and ISO45001 standards. Our vision and commitments are detailed in our EHS Policy:

https://www.commscope.com/globalassets/digizuite/912592-912598-ehs-policy-2021-english.pdf

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 aligns 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 TRACI 2.1 and CML 4.1 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 certifications (ISO9001/TL9000)
- Environmental Management System certifications (ISO14001)
- Health and Safety Management System certifications (ISO45001)

These certificates can be downloaded from our company website here:
https://www.commscope.com/corporate-responsibility-and-sustainability/philosophy/#certifications

Further Information

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Contact Information

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