Environmental Product Declaration CommScope Cat 6A Riser Data Networking Cable

Cat 6A Riser cable is a four pair premise horizontal cable and the Cat 6A Riser LAN cable is a four pair Riser rated LAN cable.

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.



CommScope Cat 6A Riser Data Networking Cable Data Networking Cable



This declaration is an environmental product declaration (EPD) in accordance with ISO 14025, EN15804, and ISO 21930-2017. 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		t Conshohocken, PA 19428			
GENERAL PROGRAM INSTRUCTIONS AND		or Product Category Rules (PCR) and Environmental			
VERSION NUMBER	2020.	s). General Program Instructions. Version 8.0. April 29,			
	CommScope, Inc.				
MANUFACTURER NAME AND ADDRESS		outheast Hickory, NC 28602			
DECLARATION NUMBER	EPD 279				
DECLARED PRODUCT & FUNCTIONAL UNIT OF	CommScope Cat 6A Riser	Data Networking Cable			
DECLARED UNIT	Functional Unit = 1 meter of installed cable over a 60 year building lifetime				
	The Norwegian EPD Found	dation: NPCR 027 Part B: Electrical Cables and Wires,			
REFERENCE PCR AND VERSION NUMBER	v2.0, March 2022.				
DESCRIPTION OF PRODUCT APPLICATION/USE		ts are primarily used in commercial, residential, and			
	educational settings.				
	30 Years Global				
MARKETS OF APPLICABILITY DATE OF ISSUE					
	November 15, 2021				
PERIOD OF VALIDITY EPD TYPE	5 Years				
DATASET VARIABILITY	Product Specific				
EPD SCOPE	Cradle-to-Grave				
YEAR(S) OF REPORTED PRIMARY DATA	2019				
LCA SOFTWARE & VERSION NUMBER	SimaPro v9.1				
LCI DATABASE(S) & VERSION NUMBER	Ecoinvent v3.5 & USLCI v2	2.0			
LCIA METHODOLOGY & VERSION NUMBER	TRACI 2.1; CML 4.1				
The sub-category PCR review was conducted by:					
This declaration was independently verified in accordan		Hy BCorrer			
The Norwegian EPD Foundation: NPCR 027 Part B: Ele		1.00			
v1.0, October 2020, serves as the core PCR, with additi	onal considerations from	Timothy S Brooke			
CEN Norm EN 15804 (2021)		ASTM International			
	EXTERNAL				
This life evels accompany was independently was if a dim		Sponed foring			
This life cycle assessment was independently verified in 14044 and the reference PCR by:	accordance with ISO	-			
14044 and the relevence FOR 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 ISO 21930:2017 §5.5 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.



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General Information

Description of Company/Organization

CommScope (NASDAQ: COMM) is one of the world's premier network solution providers—transforming connectivity for telecommunications, business enterprise, TV and broadband service providers and ventures across the globe. CommScope helps design, build and manage wired and wireless networks around the world. As a communications infrastructure leader, we shape the always-on networks of tomorrow. For more than 40 years, our global team of more than 30,000 employees, innovators and technologists has empowered customers to anticipate what's next and push the boundaries of what's possible.

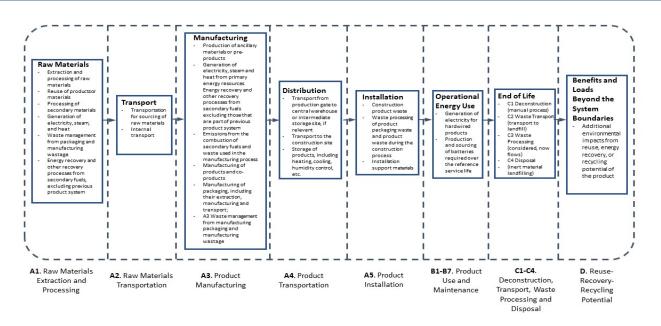
Product Description

Cat 6A Riser cable is a four pair premise horizontal cable.

Product Type: Cat 6A Riser LAN cable Product Characteristic: Four pair Riser rated LAN cable. The Cat 6A Riser LAN cable is a four pair Riser rated LAN cable.

This EPD covers the CommScope Cat 6A Riser cable product family, including: • UTP CAT 6A Riser - Product ID: CS44R, 1091B, CS41R, 1091SD, 1291B, and CS44R F/UTP

Flow Diagram





CommScope Cat 6A Riser Data Networking Cable

Data Networking Cable

Manufacturer Specific EPD

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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 any product group EPDs, an impact assessment was completed for each product and the lowest and highest impacts were reported as representations of the product group. Product grouping was considered appropriate if the individual product impacts differed by no more than ±10% in any impact category.

Application

The Cat 6A Riser rated cable is appropriate for Riser rated 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 average composition of a CommScope Cat 6A Riser Data Networking cable is as follows: Note: The minimum and maximum values represent the minimum and maximum impact products within this product family. The increase in impact results from the increased weight of colorant, insulation, and jacketing materials.

	Percentage in mass (%)					
Material	Minimum	Maximum				
Colorant	1.99%	3.46%				
Conductor	52.13%	38.11%				
Cross Filler	0.00%	0.00%				
Drain Wire	0.00%	0.00%				
Insulation	4.89%	6.38%				
Jacketing	41.00%	48.71%				
Rip Cord	0.00%	0.00%				
Tape	0.00%	3.34%				
Other	0.00%	0.00%				
Total	100.00%	100.00%				



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According to ISO 14025, EN 15804, and ISO 21930:2017

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 EN 50288-6-1, and ISO/IEC 11801 Class EA transmission standards

Properties of Declared Product as Shipped

CommScope Cat 6A Riser Data Networking cables are delivered as a complete unit, inclusive of all installation materials and instructions.



CommScope Cat 6A Riser Data Networking Cable

Data Networking Cable

Methodological Framework

Functional Unit

The declaration refers to the functional unit of 1 meter of installed cable as specified in the PCR.

Name	Value	Unit		
Declared unit	1 meter	1 meter of installed cable		
Minimum Mass	0.04	kg		
Conversion factor to 1 kg	26.70	-		
Maximum Mass	0.06	kg		
Conversion factor to 1 kg	17.25	-		

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System Boundary

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

Pro	duct Sf	age		truction ss Stage			Us	e Stage)			Er	nd of Li	fe Staç	je*	Benefits and Loads Beyond the System Boundaries
Raw material supply	Transport	Manufacturing	Transport from gate to the site	Construction/ installation process	nse	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
Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х

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 CommScope Cat 6A Riser Data Networking cable is 30 years. The building estimated service life is 60 years.

Allocation

Allocation was determined on a per meter basis.



According to

ISO 14025, EN 15804, and ISO 21930:2017

CommScope Cat 6A Riser Data Networking Cable



According to ISO 14025, EN 15804, and ISO 21930:2017

Cut-off Criteria

Data Networking Cable

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 ecoinvent 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 2019.

Treatment of Biogenic Carbon

The uptake and release of biogenic carbon throughout the product life cycle follows ISO 21930:2017 Section 7.2.7.

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 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.



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Additional Environmental Information

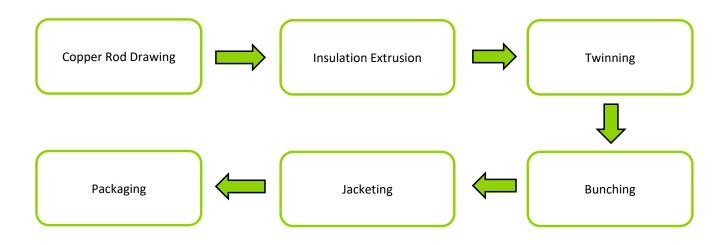
Background data

For life cycle modeling of the considered products, the SimaPro v9.1 Software System for Life Cycle Engineering, developed by PRe Sustainability, is used. The ecoinvent database contains consistent and documented datasets which are documented online. To ensure comparability of results in the LCA, the basic data of the ecoinvent database were used for energy, transportation, and auxiliary materials.

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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 occurs. 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, but most product is shipped in 1000-foot length spools and/or boxes.



Packaging

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

Note: The minimum and maximum values represent the minimum and maximum impact products within this product family.

	Quantity (% By Weight)					
Material	Minimum	Maximum				
Cardboard	38.95%	38.95%				
Other	3.13%	3.13%				
Plastic	12.28%	12.28%				
Wood	45.65%	45.65%				
Total	100.00%	100.00%				



According to

ISO 14025, EN 15804, and ISO 21930:2017

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According to ISO 14025, EN 15804, and ISO 21930:2017

Transformation

Name	Min	Max	Unit	
Fuel type	Diesel			
Liters of fuel	38	38	l/100km	
Transport distance	300	300	km	
Capacity utilization (including empty runs)	-	-	%	
Gross density of products transported	-	-	kg/m ³	
Weight of products transported	-	-	kg	
Volume of products transported	-	-	m ³	
Capacity utilization volume factor	-	-	-	

Product Installation

CommScope Cat 6A Riser Data Networking 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	Min	Max	Unit		
Auxiliary materials	-	-	kg		
Water consumption	-	-	m³		
Other resources	-	-	kg		
Electricity consumption	-	-	kWh		
Other energy carriers	-	-	MJ		
Product loss per functional unit	0.002	0.003	kg		
Waste materials at construction site	0.002	0.003	kg		
Output substance (recycle)	0.001	0.001	kg		
Output substance (landfill)	0.000	0.000	kg		
Output substance (incineration)	0.001	0.002	kg		
Packaging waste (recycle)	0.003	0.003	kg		
Packaging waste (landfill)	0.001	0.001	kg		
Packaging waste (incineration)	0.000	0.000	kg		
Direct emissions to ambient air*, soil, and water	0.001	0.001	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			
Estimated Building Service Life	60	years			
Number of Replacements	1	number			



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Product Use

Data Networking Cable

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.

Operational Energy Use (B6)						
Name	Min	Max	Unit			
Water consumption (from tap, to sewer)	-	-	m³			
Electricity consumption	0.50	0.50	kWh			
Other energy carriers	-	-	MJ			
Equipment output	-	-	kW			
Direct emissions to ambient air, soil, and water	-	-	kg			

Maximum Loss Values per Cable Type					
Cable Type	Protocol	Power Loss (mW/m)			
CAT5e	Ethernet 100M	0.454			
CAT6	1G Ethernet	0.565			
CAT6a	10G Ethernet	1.364			
CAT7	10G Ethernet	1.363			
CAT7a	10G Ethernet	1.356			
CAT7+	10G Ethernet	1.351			

Disposal

The product can be mechanically dissembled to separate the different materials. 85% of the metals used are recyclable. The remainder of components are disposed of through waste incineration with energy recovery, in accordance with the PCR, with the exception of fiberglass which would be landfilled.

End of life (C1-C4)			
Name	Min	Max	Unit
Collected separately	0.02	0.02	kg
Collected as mixed construction waste	0.02	0.03	kg
Reuse	0.00	0.00	kg
Recycling	0.02	0.02	kg
Landfilling	0.00	0.00	kg
Incineration with energy recovery	0.02	0.04	kg
Energy conversion	44.00	44.00	%
Removals of biogenic carbon	-	-	kg

Re-use Phase

Re-use of the product is not common due to the nature of hard-wiring the product into the building system.

Name	Min	Max	Unit
Net energy benefit from energy recovery from waste treatment declared as exported energy in C3 (R>0.6)	0.15	0.30	MJ
Net energy benefit from thermal energy due to treatment of waste declared as exported energy in C4 (R<0.6)	0.00	0.00	MJ
Net energy benefit from material flow declared in C3 for energy recovery	0.00	0.00	MJ
Process and conversion efficiencies			
Further assumptions for scenario development (e.g. further processing technologies, assumptions on correction factors);			



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LCA Results - Minimum Impact

Results shown below were calculated using TRACI 2.1 Methodology.

TRACI 2.1 Impact Assessment Parameter Parameter Unit A1-A3 A4 A5 B4 B6 C2 C3 C4 D												
Parameter	Unit	A1-A3	A4	A5	B4	B6	C2	C3	C4	D		
Global warming potential	kg CO ₂ -Eq.	2.34E-01	1.10E-03	6.52E-04	2.84E-01	3.33E-01	3.48E-04	4.65E-02	1.17E-03	-1.87E-01		
Depletion potential of the stratospheric ozone layer	kg CFC-11 Eq.	5.81E-08	4.18E-14	4.40E-13	5.83E-08	5.37E-12	1.33E-14	1.63E-10	7.40E-12	-1.88E-09		
Acidification potential for air emissions	kg SO ₂ -Eq.	3.64E-03	6.54E-06	3.87E-07	3.67E-03	2.87E-03	2.08E-06	1.98E-05	3.28E-06	-3.44E-03		
Eutrophication potential	kg N-Eq.	1.94E-02	3.64E-07	3.20E-05	1.94E-02	3.87E-05	1.16E-07	1.10E-05	1.04E-05	-2.05E-02		
Smog formation potential	kg O ₃ -Eq.	6.56E-02	1.79E-04	9.74E-06	6.63E-02	1.91E-02	5.68E-05	3.19E-04	7.08E-05	-6.70E-02		
Fossil Fuel Depletion	MJ-surplus	4.48E-02	2.10E-03	6.86E-05	4.78E-02	2.89E-01	6.66E-04	8.92E-05	2.10E-05	-4.79E-02		
	Parameter Global warming potential Depletion potential of the stratospheric ozone layer Acidification potential for air emissions Eutrophication potential Smog formation potential Fossil Fuel Depletion	Parameter Unit Global warming potential kg CO2-Eq. Depletion potential of the stratospheric ozone layer kg CFC-11 Eq. Acidification potential for air emissions kg SO2-Eq. Eutrophication potential kg N-Eq. Smog formation potential kg O3-Eq. Fossil Fuel Depletion MJ-surplus	ParameterUnitA1-A3Global warming potentialkg CO2-Eq.2.34E-01Depletion potential of the stratospheric ozone layerkg CFC-11 Eq.5.81E-08Acidification potential for air emissionskg SO2-Eq.3.64E-03Eutrophication potentialkg N-Eq.1.94E-02Smog formation potentialkg O3-Eq.6.56E-02Fossil Fuel DepletionMJ-surplus4.48E-02	ParameterUnitA1-A3A4Global warming potentialkg CO2-Eq.2.34E-011.10E-03Depletion potential of the stratospheric ozone layerkg CFC-11 Eq.5.81E-084.18E-14Acidification potential for air emissionskg SO2-Eq.3.64E-036.54E-06Eutrophication potentialkg N-Eq.1.94E-023.64E-07Smog formation potentialkg O3-Eq.6.56E-021.79E-04Fossil Fuel DepletionMJ-surplus4.48E-022.10E-03	ParameterUnitA1-A3A4A5Global warming potentialkg CO2-Eq.2.34E-011.10E-036.52E-04Depletion potential of the stratospheric ozone layerkg CFC-11 Eq.5.81E-084.18E-144.40E-13Acidification potential for air emissionskg SO2-Eq.3.64E-036.54E-063.87E-07Eutrophication potentialkg N-Eq.1.94E-023.64E-033.20E-05Smog formation potentialkg O3-Eq.6.56E-021.79E-049.74E-06Fossil Fuel DepletionMJ-surplus4.48E-022.10E-036.86E-05	Parameter Unit A1-A3 A4 A5 B4 Global warming potential kg CO2-Eq. 2.34E-01 1.10E-03 6.52E-04 2.84E-01 Depletion potential of the stratospheric ozone layer kg CFC-11 Eq. 5.81E-08 4.18E-14 4.40E-13 5.83E-08 Acidification potential for air emissions kg SO2-Eq. 3.64E-03 6.54E-06 3.87E-07 3.67E-03 Eutrophication potential kg N-Eq. 1.94E-02 3.64E-03 9.74E-06 6.63E-02 Smog formation potential kg O3-Eq. 6.56E-02 1.79E-04 9.74E-06 6.63E-02 Fossil Fuel Depletion MJ-surplus 4.48E-02 2.10E-03 6.86E-05 4.78E-02	Parameter Unit A1-A3 A4 A5 B4 B6 Global warming potential kg CO2-Eq. 2.34E-01 1.10E-03 6.52E-04 2.84E-01 3.33E-01 Depletion potential of the stratospheric ozone layer kg CFC-11 Eq. 5.81E-08 4.18E-14 4.40E-13 5.83E-08 5.37E-12 Acidification potential for air emissions kg SO2-Eq. 3.64E-03 6.54E-06 3.87E-07 3.67E-03 2.87E-03 Eutrophication potential kg N-Eq. 1.94E-02 3.64E-07 3.20E-05 1.94E-02 3.87E-07 Smog formation potential kg O_3-Eq. 6.56E-02 1.79E-04 9.74E-06 6.63E-02 1.91E-02 Fossil Fuel Depletion MJ-surplus 4.48E-02 2.10E-03 6.86E-05 4.78E-02 2.89E-01	Parameter Unit A1-A3 A4 A5 B4 B6 C2 Global warming potential kg CO2-Eq. 2.34E-01 1.10E-03 6.52E-04 2.84E-01 3.33E-01 3.48E-04 Depletion potential of the stratospheric ozone layer kg CFC-11 Eq. 5.81E-08 4.18E-14 4.40E-13 5.83E-08 5.37E-12 1.33E-14 Acidification potential for air emissions kg SO2-Eq. 3.64E-03 6.54E-06 3.87E-07 3.67E-03 2.87E-03 2.08E-06 Eutrophication potential kg N-Eq. 1.94E-02 3.64E-07 3.20E-05 1.94E-02 3.87E-07 3.87E-02 3.87E-05 1.94E-02 5.68E-05 Smog formation potential kg 0_3-Eq. 6.56E-02 1.79E-04 9.74E-06 6.63E-02 1.91E-02 5.68E-05	ParameterUnitA1-A3A4A5B4B6C2C3Global warming potential $kg CO_2$ -Eq.2.34E-011.10E-036.52E-042.84E-013.33E-013.48E-044.65E-02Depletion potential of the stratospheric ozone layer $kg CFC-11$ Eq.5.81E-084.18E-144.40E-135.83E-085.37E-121.33E-141.63E-10Acidification potential for air emissions $kg SO_2$ -Eq.3.64E-036.54E-063.87E-073.67E-032.87E-032.08E-061.98E-05Eutrophication potential $kg N$ -Eq.1.94E-023.64E-073.20E-051.94E-023.87E-051.16E-071.10E-05Smog formation potential $kg O_3$ -Eq.6.56E-021.79E-049.74E-066.63E-021.91E-025.68E-053.19E-04Fossil Fuel DepletionMJ-surplus4.48E-022.10E-036.86E-054.78E-022.89E-016.66E-048.92E-05	Parameter Unit A1-A3 A4 A5 B4 B6 C2 C3 C4 Global warming potential kg CO2-Eq. 2.34E-01 1.10E-03 6.52E-04 2.84E-01 3.33E-01 3.48E-04 4.65E-02 1.17E-03 Depletion potential of the stratospheric ozone layer kg CFC-11 Eq. 5.81E-08 4.18E-14 4.40E-13 5.83E-08 5.37E-12 1.33E-14 1.63E-10 7.40E-12 Acidification potential for air emissions kg SO2-Eq. 3.64E-03 6.54E-06 3.87E-07 3.67E-03 2.87E-03 2.08E-06 1.98E-05 3.28E-06 Eutrophication potential kg N-Eq. 1.94E-02 3.64E-07 3.20E-05 1.94E-02 3.87E-07 3.67E-03 2.87E-03 1.08E-05 1.04E-05 Smog formation potential kg N-aptice 1.94E-02 3.64E-07 3.20E-05 1.94E-02 3.87E-07 3.67E-03 3.87E-05 1.16E-07 1.10E-05 1.04E-05 Smog formation potential kg O_3-Eq. 6.56E-02 1.79E-04 9.74E-06 6.63E-02 1.91E-02		

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

Results shown below were calculated using EN 15804 Methodology.

EN 15804 Impact Assessm	nent									
Parameter	Unit	A1-A3	A4	A5	B4	B6	C2	C3	C4	D
Climate change	kg CO2 eq	2.35E-01	1.12E-03	9.91E-03	5.70E-01	3.43E-01	3.56E-04	4.66E-02	1.20E-03	-1.95E-01
Ozone depletion	kg CFC11 eq	5.72E-08	2.85E-14	3.97E-13	1.15E-07	2.90E-12	9.06E-15	1.52E-10	6.46E-12	-1.37E-09
Ionising radiation	kBq U-235 eq	1.75E-02	0.00E+00	6.26E-07	3.53E-02	0.00E+00	0.00E+00	1.77E-04	1.52E-05	-1.11E-02
Photochemical ozone formation	kg NMVOC eq	2.80E-03	7.57E-06	5.85E-07	5.65E-03	9.62E-04	2.40E-06	1.46E-05	3.05E-06	-2.84E-03
Particulate matter	disease inc.	3.56E-08	1.56E-11	2.95E-12	7.15E-08	1.89E-08	4.95E-12	1.44E-10	3.71E-11	-3.49E-08
Human toxicity, non-cancer	CTUh	4.26E-09	1.89E-11	1.13E-10	9.60E-09	1.58E-09	6.01E-12	8.95E-11	3.08E-10	-2.72E-09
Human toxicity, cancer	CTUh	1.69E-09	1.50E-13	1.44E-13	3.42E-09	1.39E-11	4.75E-14	1.69E-11	4.28E-12	-1.55E-09
Acidification	mol H+ eq	4.49E-03	5.97E-06	3.96E-07	9.04E-03	3.46E-03	1.90E-06	1.95E-05	3.78E-06	-4.24E-03
Eutrophication, freshwater	kg P eq	2.61E-03	0.00E+00	6.03E-09	5.22E-03	0.00E+00	0.00E+00	9.17E-07	4.12E-07	-2.78E-03
Eutrophication, marine	kg N eq	1.14E-03	2.80E-06	7.68E-07	2.31E-03	2.99E-04	8.90E-07	6.10E-06	1.39E-06	-1.16E-03
Eutrophication, terrestrial	mol N eq	1.63E-02	3.06E-05	1.73E-06	3.28E-02	3.25E-03	9.72E-06	5.74E-05	1.27E-05	-1.68E-02
Ecotoxicity, freshwater	CTUe	1.63E+01	2.94E-02	2.06E-02	3.58E+01	2.10E+00	9.34E-03	4.97E-02	1.49E+00	-1.68E+01
Land use	Pt	4.21E+00	0.00E+00	6.23E-04	8.47E+00	0.00E+00	0.00E+00	1.57E-02	8.62E-03	-3.50E+00
Water use	m3 depriv.	8.95E-02	0.00E+00	-1.55E-04	2.61E-01	0.00E+00	0.00E+00	4.09E-02	1.42E-04	-6.53E-02
Resource use, fossils	MJ	1.61E+00	1.41E-02	5.13E-04	3.28E+00	4.64E+00	4.47E-03	1.26E-02	2.55E-03	-1.32E+00
Resource use, minerals and metals	kg Sb eq	5.32E-05	0.00E+00	4.17E-11	1.07E-04	0.00E+00	0.00E+00	1.84E-08	2.78E-09	-5.10E-05
Climate change - Fossil	kg CO2 eq	2.44E-01	1.12E-03	3.02E-04	5.87E-01	3.43E-01	3.56E-04	4.66E-02	1.19E-03	-1.95E-01
Climate change - Biogenic	kg CO2 eq	-9.61E-03	0.00E+00	9.61E-03	4.66E-05	0.00E+00	0.00E+00	4.66E-05	0.00E+00	0.00E+00
Climate change - Land use and LU change	kg CO2 eq	2.43E-04	0.00E+00	1.27E-08	4.91E-04	0.00E+00	0.00E+00	2.36E-06	5.13E-07	-1.86E-04
Human toxicity, non-cancer - organics	CTUh	6.39E-10	3.33E-14	8.09E-13	1.28E-09	2.52E-11	1.06E-14	1.46E-12	3.00E-13	-3.24E-10
Human toxicity, non-cancer - inorganics	CTUh	1.39E-09	6.93E-12	1.12E-10	3.56E-09	3.27E-10	2.20E-12	3.92E-11	2.32E-10	-1.16E-09
Human toxicity, non-cancer - metals	CTUh	2.27E-09	1.20E-11	4.39E-13	4.83E-09	1.23E-09	3.80E-12	4.93E-11	7.57E-11	-1.26E-09
Human toxicity, cancer - organics	CTUh	1.66E-09	2.85E-15	1.38E-13	3.35E-09	2.72E-12	9.03E-16	1.64E-11	1.54E-12	-1.53E-09
Human toxicity, cancer - inorganics	CTUh	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
Human toxicity, cancer - metals	CTUh	3.23E-11	1.47E-13	5.49E-15	7.14E-11	1.11E-11	4.66E-14	4.87E-13	2.74E-12	-1.71E-11
Ecotoxicity, freshwater - organics	CTUe	4.12E-01	1.81E-05	4.30E-05	8.33E-01	1.75E-03	5.75E-06	3.50E-03	5.52E-04	-3.72E-01
Ecotoxicity, freshwater - inorganics	CTUe	1.45E+01	6.19E-03	1.43E-02	3.20E+01	7.92E-01	1.97E-03	7.58E-03	1.48E+00	-1.55E+01
Ecotoxicity, freshwater - metals	CTUe	1.38E+00	2.32E-02	6.34E-03	2.92E+00	1.31E+00	7.37E-03	3.86E-02	7.79E-03	-9.47E-01



According to ISO 14025, EN 15804, and ISO 21930:2017

CommScope Cat 6A Riser Data Networking Cable



According to ISO 14025, EN 15804, and ISO 21930:2017

Data Networking Cable

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

CML 4.1 Impact Assessment												
Parameter	Parameter	Unit	A1-A3	A4	A5	B4	B6	C2	C3	C4	D	
GWP	Global warming potential	kg CO ₂ -Eq.	2.36E-01	1.10E-03	7.48E-04	2.86E-01	3.33E-01	3.48E-04	4.65E-02	1.17E-03	-1.87E-01	
ODP	Depletion potential of the stratospheric ozone layer	kg CFC-11 Eq.	5.70E-08	4.14E-14	3.23E-13	5.71E-08	5.37E-12	1.33E-14	1.63E-10	7.40E-12	-1.88E-09	
AP Air	Acidification potential for air emissions	kg SO₂-Eq.	3.20E-03	5.40E-06	3.27E-07	3.23E-03	2.87E-03	2.08E-06	1.98E-05	3.28E-06	-3.44E-03	
EP	Eutrophication potential	kg(PO ₄) ³ - Eq.	8.55E-03	9.56E-07	1.15E-05	8.59E-03	3.87E-05	1.16E-07	1.10E-05	1.04E-05	-2.05E-02	
POCP	Formation potential of tropospheric ozone photochemical oxidants	kg ethane- Eq.	9.04E-05	2.49E-07	1.16E-07	5.37E-04	1.91E-02	5.68E-05	3.19E-04	7.08E-05	-6.70E-02	
ADPE	Abiotic depletion potential for non-fossil resources	kg Sb-Eq.	5.32E-05	0.00E+00	4.17E-11	8.30E-04	2.89E-01	6.66E-04	8.92E-05	2.10E-05	-4.79E-02	
ADPF	Abiotic depletion potential for fossil resources	MJ	1.33E+00	1.41E-02	5.02E-04	1.39E+00	3.36E-01	3.49E-04	4.65E-02	1.17E-03	-1.88E-01	

*All use phase and disposal stages 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.

Resource Use												
Parameter	Parameter	Unit	A1-A3	A4	A5	B4	B6	C2	C3	C4	D	
RPR _E	Renewable primary energy as energy carrier	MJ	8.14E-01	0.00E+00	-7.45E-01	6.96E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
RPR_{M}	Renewable primary energy resources as material utilization	MJ	1.26E+00	4.64E+00	-1.32E+00	4.58E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
NRPR _E	Nonrenewable primary energy as energy carrier	MJ	1.26E+00	1.41E-02	-2.54E+00	-1.24E+00	4.64E+00	4.47E-03	1.26E-02	2.56E-03	-1.32E+00	
$NRPR_{M}$	Nonrenewable primary energy as material utilization	MJ	3.44E-01	0.00E+00	2.54E+00	2.88E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
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	0.00E+00	0.00E+00	
FW	Use of net fresh water	m³	2.20E-03	0.00E+00	-3.55E-06	3.43E-03	0.00E+00	0.00E+00	1.24E-03	3.58E-06	-1.68E-03	

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



CommScope Cat 6A Riser Data Networking Cable



Data Networking Cable

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

Output Fl	ows and Waste Cate	gories									
Parameter	Parameter	Unit	A1-A3	A4	A5	B4	B6	C2	C3	C4	D
HWD	Hazardous waste disposed	kg	8.31E-08	0.00E+00	4.15E-09	8.72E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NHWD	Non-hazardous waste disposed	kg	1.40E-04	0.00E+00	1.00E-03	4.07E-03	0.00E+00	0.00E+00	0.00E+00	2.93E-03	0.00E+00
HLRW	High-level radioactive waste	kg	0.00E+00								
ILLRW	Intermediate- and low-level radioactive waste	kg	0.00E+00								
CRU	Components for re-use	kg	0.00E+00								
MR	Materials for recycling	kg	1.41E-03	0.00E+00	2.67E-03	2.07E-02	0.00E+00	0.00E+00	1.66E-02	0.00E+00	0.00E+00
MER	Materials for energy recovery	kg	0.00E+00	0.00E+00	2.49E-04	1.82E-02	0.00E+00	0.00E+00	1.79E-02	0.00E+00	0.00E+00
EE	Recovered energy exported from system	MJ	0.00E+00	0.00E+00	0.00E+00	1.52E-01	0.00E+00	0.00E+00	1.52E-01	0.00E+00	0.00E+00

*All use phase and disposal stages 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 Unit A1-A3 A4 A5 B4 B6 C2 C3 C4 D													
Parameter	Parameter	Unit	A1-A3	A4	A5	B4	B6	C2	C3	C4	D		
BCRP	Biogenic Carbon Removal from Product	kg CO ₂	0.00E+00										
BCEP	Biogenic Carbon Emissions from Product	kg CO ₂	0.00E+00										
BCRK	Biogenic Carbon Removal from Packaging	kg CO ₂	1.20E-03	0.00E+00	0.00E+00	1.20E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
BCEK	Biogenic Carbon Emissions from Packaging	kg CO ₂	0.00E+00	0.00E+00	1.20E-03	1.20E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
BCEW	Biogenic Carbon Emissions from Combustion of Waste from Renewable Sources Used in Production Process	kg CO ₂	0.00E+00	0.00E+0									
CCE	Calcination Carbon Emissions	kg CO ₂	0.00E+00										
CCR	Carbonation Carbon Removal	kg CO ₂	0.00E+00										
CWNR	Carbon Emissions from Combustion of Waste from Non-renewable Sources Used in Production Process	kg CO ₂	0.00E+00										

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



CommScope Cat 6A Riser Data Networking Cable

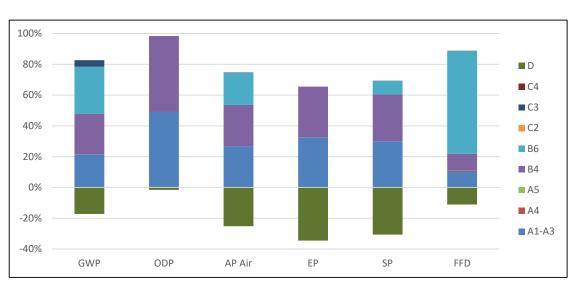
Data Networking Cable

LCA Interpretation - Minimum Impact

The production life cycle stage (A1-A3) and in life energy usage (B6) dominate the impacts across all impact categories. This is due to the upstream production of materials used in the product, along with electricity use in the manufacturing of the product and the consumption of electricity during the cable's usage. With one replacement required over a life-span of a building, the replacement stage (B4) dominates from duplicating these stages. Significant impact reductions in the benefits and loads beyond system boundaries phase (D) can be attributed to energy produced from incineration of materials in the product that cannot be recycled.

COMMSCOPE

ASTM INTERNATION/





According to

ISO 14025, EN 15804, and ISO 21930:2017

CommScope Cat 6A Riser Data Networking Cable

Data Networking Cable



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	B4	B6	C2	C3	C4	D	
GWP	Global warming potential	kg CO ₂ -Eq.	3.36E-01	1.69E-03	6.93E-04	4.28E-01	3.33E-01	5.38E-04	8.68E-02	2.02E-03	-3.87E-01	
ODP	Depletion potential of the stratospheric ozone layer	kg CFC-11 Eq.	1.27E-07	6.46E-14	4.20E-12	1.29E-07	5.37E-12	2.05E-14	1.75E-09	1.43E-10	-2.10E-08	
AP Air	Acidification potential for air emissions	kg SO ₂ -Eq.	4.86E-03	1.01E-05	4.21E-07	4.91E-03	2.87E-03	3.21E-06	3.92E-05	5.98E-06	-6.54E-03	
EP	Eutrophication potential	kg N-Eq.	2.26E-02	5.64E-07	8.92E-06	2.27E-02	3.87E-05	1.79E-07	1.99E-05	1.78E-05	-3.37E-02	
SP	Smog formation potential	kg O ₃ -Eq.	8.12E-02	2.77E-04	9.87E-06	8.24E-02	1.91E-02	8.79E-05	6.11E-04	1.24E-04	-1.16E-01	
FFD	Fossil Fuel Depletion	MJ-surplus	4.65E-01	3.25E-03	1.11E-04	4.78E-01	2.89E-01	1.03E-03	7.94E-03	1.41E-03	-3.49E-01	

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

Results shown below were calculated using EN 15804 Methodology.

EN 15804 Impact Assessm	Unit	A1-A3	A4	A5	B4	B6	C2	C3	C4	D
		3.24E-01	1.73E-03	1.04E-02	4.17E-01	3.43E-01	5.50E-04	8.74E-02	2.25E-03	-2.48E-01
Climate change	kg CO2 eq									
Ozone depletion	kg CFC11 eq	1.05E-07	4.41E-14	3.97E-13	1.05E-07	2.90E-12	1.40E-14	2.85E-10	1.21E-11	-1.55E-09
Ionising radiation	kBq U-235 eq	2.35E-02	0.00E+00	6.26E-07	2.39E-02	0.00E+00	0.00E+00	3.32E-04	2.85E-05	-1.25E-02
Photochemical ozone formation	kg NMVOC eq	3.30E-03	1.17E-05	5.85E-07	3.35E-03	9.62E-04	3.72E-06	2.74E-05	5.72E-06	-3.31E-03
Particulate matter	disease inc.	4.27E-08	2.41E-11	2.95E-12	4.31E-08	1.89E-08	7.65E-12	2.70E-10	6.96E-11	-4.11E-08
Human toxicity, non-cancer	CTUh	5.15E-09	2.93E-11	1.13E-10	6.05E-09	1.58E-09	9.30E-12	1.68E-10	5.76E-10	-3.22E-09
Human toxicity, cancer	CTUh	2.10E-09	2.32E-13	1.44E-13	2.14E-09	1.39E-11	7.35E-14	3.17E-11	8.01E-12	-1.76E-09
Acidification	mol H+ eq	5.34E-03	9.24E-06	3.96E-07	5.40E-03	3.46E-03	2.93E-06	3.65E-05	7.08E-06	-5.08E-03
Eutrophication, freshwater	kg P eq	2.97E-03	0.00E+00	6.03E-09	2.98E-03	0.00E+00	0.00E+00	1.72E-06	7.72E-07	-3.15E-03
Eutrophication, marine	kg N eq	1.34E-03	4.34E-06	7.68E-07	1.36E-03	2.99E-04	1.38E-06	1.14E-05	2.61E-06	-1.33E-03
Eutrophication, terrestrial	mol N eq	1.89E-02	4.73E-05	1.73E-06	1.91E-02	3.25E-03	1.50E-05	1.08E-04	2.39E-05	-1.92E-02
Ecotoxicity, freshwater	CTUe	1.92E+01	4.55E-02	2.06E-02	2.21E+01	2.10E+00	1.44E-02	9.31E-02	2.79E+00	-1.93E+01
Land use	Pt	4.88E+00	0.00E+00	6.23E-04	4.92E+00	0.00E+00	0.00E+00	2.95E-02	1.62E-02	-3.96E+00
Water use	m3 depriv.	1.17E-01	0.00E+00	-1.55E-04	1.94E-01	0.00E+00	0.00E+00	7.67E-02	2.67E-04	-7.40E-02
Resource use, fossils	MJ	2.28E+00	2.18E-02	5.13E-04	2.34E+00	4.64E+00	6.92E-03	2.36E-02	4.79E-03	-1.87E+00
Resource use, minerals and metals	kg Sb eq	6.07E-05	0.00E+00	4.17E-11	6.07E-05	0.00E+00	0.00E+00	3.44E-08	5.21E-09	-5.78E-05
Climate change - Fossil	kg CO2 eq	3.34E-01	1.73E-03	3.02E-04	4.26E-01	3.43E-01	5.50E-04	8.73E-02	2.23E-03	-2.48E-01
Climate change - Biogenic	kg CO2 eq	-1.01E-02	0.00E+00	1.01E-02	8.74E-05	0.00E+00	0.00E+00	8.74E-05	0.00E+00	0.00E+00
limate change - Land use and LU chang	kg CO2 eq	3.06E-04	0.00E+00	1.27E-08	3.12E-04	0.00E+00	0.00E+00	4.42E-06	9.62E-07	-2.10E-04
Human toxicity, non-cancer - organics	CTUh	7.49E-10	5.15E-14	8.09E-13	7.53E-10	2.52E-11	1.63E-14	2.74E-12	5.63E-13	-3.69E-10
Human toxicity, non-cancer - inorganics	CTUh	1.83E-09	1.07E-11	1.12E-10	2.47E-09	3.27E-10	3.40E-12	7.34E-11	4.34E-10	-1.35E-09
Human toxicity, non-cancer - metals	CTUh	2.63E-09	1.85E-11	4.39E-13	2.89E-09	1.23E-09	5.88E-12	9.23E-11	1.42E-10	-1.53E-09
Human toxicity, cancer - organics	CTUh	2.06E-09	4.40E-15	1.38E-13	2.09E-09	2.72E-12	1.40E-15	3.08E-11	2.88E-12	-1.74E-09
Human toxicity, cancer - inorganics	CTUh	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
Human toxicity, cancer - metals	CTUh	3.73E-11	2.27E-13	5.49E-15	4.36E-11	1.11E-11	7.21E-14	9.12E-13	5.13E-12	-2.00E-11
Ecotoxicity, freshwater - organics	CTUe	5.14E-01	2.80E-05	4.30E-05	5.22E-01	1.75E-03	8.90E-06	6.55E-03	1.03E-03	-4.21E-01
Ecotoxicity, freshwater - inorganics	CTUe	1.66E+01	9.58E-03	1.43E-02	1.94E+01	7.92E-01	3.04E-03	1.42E-02	2.78E+00	-1.77E+01
Ecotoxicity, freshwater - metals	CTUe	2.04E+00	3.59E-02	6.34E-03	2.18E+00	1.31E+00	1.14E-02	7.24E-02	1.46E-02	-1.23E+00



CommScope Cat 6A Riser Data Networking Cable



According to ISO 14025, EN 15804, and ISO 21930:2017

Data Networking Cable

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

CML 4.1 Impact Assessment												
Parameter	Parameter	Unit	A1-A3	A4	A5	B4	B6	C2	C3	C4	D	
GWP	Global warming potential	kg CO ₂ -Eq.	3.37E-01	1.70E-03	8.01E-04	4.29E-01	3.33E-01	5.38E-04	8.68E-02	2.02E-03	-3.87E-01	
ODP	Depletion potential of the stratospheric ozone layer	kg CFC-11 Eq.	1.22E-07	6.40E-14	3.21E-12	1.24E-07	5.37E-12	2.05E-14	1.75E-09	1.43E-10	-2.10E-08	
AP Air	Acidification potential for air emissions	kg SO₂-Eq.	4.36E-03	8.35E-06	3.37E-07	4.42E-03	2.87E-03	3.21E-06	3.92E-05	5.98E-06	-6.54E-03	
EP	Eutrophication potential	kg(PO ₄) ³ - Eq.	1.00E-02	1.48E-06	3.28E-06	1.01E-02	3.87E-05	1.79E-07	1.99E-05	1.78E-05	-3.37E-02	
POCP	Formation potential of tropospheric ozone photochemical oxidants	kg ethane- Eq.	1.37E-04	3.85E-07	1.29E-07	9.60E-04	1.91E-02	8.79E-05	6.11E-04	1.24E-04	-1.16E-01	
ADPE	Abiotic depletion potential for non-fossil resources	kg Sb-Eq.	5.83E-05	0.00E+00	2.05E-10	1.04E-02	2.89E-01	1.03E-03	7.94E-03	1.41E-03	-3.49E-01	
ADPF	Abiotic depletion potential for fossil resources	MJ	4.67E+00	2.18E-02	7.81E-04	4.78E+00	3.36E-01	5.39E-04	8.68E-02	2.03E-03	-3.87E-01	

*All use phase and disposal stages 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.

Persource Use													
Parameter	Parameter	Unit	A1-A3	A4	A5	B4	B6	C2	C3	C4	D		
RPR _E	Renewable primary energy as energy carrier	MJ	9.10E-01	0.00E+00	-1.20E+00	-2.94E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
RPR_{M}	Renewable primary energy resources as material utilization	MJ	5.52E-02	0.00E+00	0.00E+00	5.52E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
NRPR _E	Nonrenewable primary energy as energy carrier	MJ	4.30E+00	2.18E-02	-2.54E+00	1.88E+00	4.64E+00	6.92E-03	7.37E-02	1.33E-02	-4.71E+00		
$NRPR_{M}$	Nonrenewable primary energy as material utilization	MJ	6.84E-01	0.00E+00	2.54E+00	3.22E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
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	0.00E+00	0.00E+00		
FW	Use of net fresh water	m³	2.99E-03	0.00E+00	3.78E-07	5.35E-03	0.00E+00	0.00E+00	2.35E-03	7.46E-06	-2.74E-03		

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



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

Output Fl	ows and Waste Cate	gories									
Parameter	Parameter	Unit	A1-A3	A4	A5	B4	B6	C2	C3	C4	D
HWD	Hazardous waste disposed	kg	8.31E-08	0.00E+00	4.15E-09	8.72E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NHWD	Non-hazardous waste disposed	kg	1.40E-04	0.00E+00	1.00E-03	4.46E-03	0.00E+00	0.00E+00	0.00E+00	3.31E-03	0.00E+00
HLRW	High-level radioactive waste	kg	0.00E+00								
ILLRW	Intermediate- and low-level radioactive waste	kg	0.00E+00								
CRU	Components for re-use	kg	0.00E+00								
MR	Materials for recycling	kg	1.41E-03	0.00E+00	2.67E-03	2.29E-02	0.00E+00	0.00E+00	1.88E-02	0.00E+00	0.00E+00
MER	Materials for energy recovery	kg	0.00E+00	0.00E+00	2.49E-04	3.61E-02	0.00E+00	0.00E+00	3.59E-02	0.00E+00	0.00E+00
EE	Recovered energy exported from system	MJ	0.00E+00	0.00E+00	0.00E+00	3.01E-01	0.00E+00	0.00E+00	3.01E-01	0.00E+00	0.00E+00

*All use phase and disposal stages 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											
Parameter	Parameter	Unit	A1-A3	A4	A5	B4	B6	C2	C3	C4	D
BCRP	Biogenic Carbon Removal from Product	kg CO ₂	0.00E+00								
BCEP	Biogenic Carbon Emissions from Product	kg CO ₂	0.00E+00								
BCRK	Biogenic Carbon Removal from Packaging	kg CO ₂	1.20E-03	0.00E+00	0.00E+00	1.20E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEK	Biogenic Carbon Emissions from Packaging	kg CO ₂	0.00E+00	0.00E+00	1.20E-03	1.20E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEW	Biogenic Carbon Emissions from Combustion of Waste from Renewable Sources Used in Production Process	kg CO ₂	0.00E+00								
CCE	Calcination Carbon Emissions	kg CO ₂	0.00E+00								
CCR	Carbonation Carbon Removal	kg CO ₂	0.00E+00								
CWNR	Carbon Emissions from Combustion of Waste from Non-renewable Sources Used in Production Process	kg CO ₂	0.00E+00								

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



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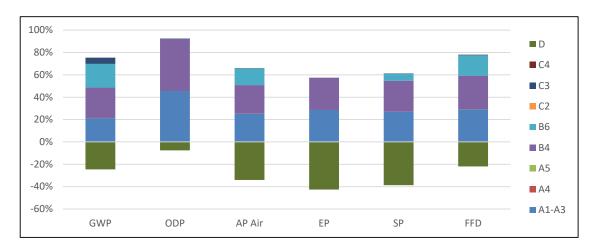
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LCA Interpretation - Maximum Impact

The production life cycle stage (A1-A3) and in life energy usage (B6) dominate the impacts across all impact categories. This is due to the upstream production of materials used in the product, along with electricity use in the manufacturing of the product and the consumption of electricity during the cable's usage. With one replacement required over a life-span of a building, the replacement stage (B4) dominates from duplicating these stages. Significant impact reductions in the benefits and loads beyond system boundaries phase (D) can be attributed to energy produced from incineration of materials in the product that cannot be recycled.

COMMSCOPE

STM INTERNATION/





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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 committments 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 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.



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According to ISO 14025, EN 15804, and ISO 21930:2017

Extraordinary Effects

Fire

Cable complies with applicable Riser Communications Cable fire safety standards.

Water None Mechanical Destruction None

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/.

Further Information

CommScope, Inc. 1100 CommScope Place Southeast Hickory, NC 28602



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Study Commissioner



For more information, please visit http://www.commscope.com, or contact Technical Support at http://commscope.com/contact-us/contactcommscope or 1-800-830-5056.

LCA Practitioner



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