

Fiber OSP cable, LightScope ZWP® Blown Micro Single Jacket, 60 fiber, All-Dielectric Stranded Loose Tube Arid-Core® Construction, Gel-filled, Singlemode G.652.D and G.657.Al, Feet jacket marking, Black jacket color

\*Product complies with the Build America, Buy America Act (BABAA) requirements of the Infrastructure Investment and Jobs Act of 2021 (Pub. L. 117- 58, §§ 70901-70953), or is the subject of a waiver approved by the Secretary of Commerce or designee. Compliance requirements and waiver applicability vary based on government funding program. Check the laws and regulations for your specific program.

#### **Product Classification**

Regional Availability

Asia | Australia/New Zealand | EMEA | Latin America | North

America

Portfolio CommScope®

**Product Type** Fiber OSP cable

**Product Series** B-LN

Government Funding Build America Buy America (BABA) compliant\*

# General Specifications

Cable Type Stranded loose tube

Construction Type Non-armored

Subunit Type Gel-filled

Filler, quantity 0

Jacket ColorBlackJacket MarkingFeetJacket Marking MethodLaser

Jacket Marking Text COMMSCOPE OPTICAL CABLE OS2 SM 60F (SERIAL NUMBER) MM/YYYY

XXXXXXXFT

Subunit, quantity 5
Fibers per Subunit, quantity 12
Total Fiber Count 60

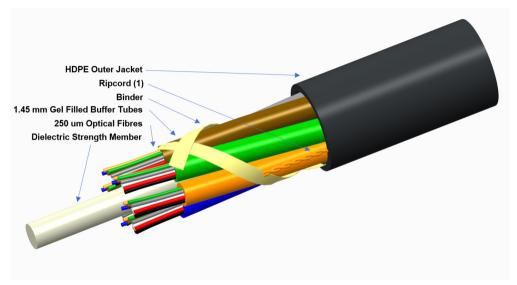
**Dimensions** 

**Buffer Tube/Subunit Diameter** 1.45 mm | 0.057 in

#### **Diameter Over Jacket**

5.1 mm | 0.201 in

# Representative Image



## Material Specifications

Jacket Material High density polyethylene (HDPE)

# Mechanical Specifications

Minimum Bend Radius, loaded 208.3 mm | 8.201 in

Minimum Bend Radius, unloaded 55 mm | 2.165 in

**Tensile Load, long term, maximum** 97 N | 21.806 lbf

**Tensile Load, short term, maximum** 324 N | 72.838 lbf

**Compression** 10 N/mm | 57.101 lb/in

Compression Test Method IEC 60794-1-21 E3

Flex 25 cycles

Flex Test Method IEC 60794-1 E6

**Impact** 0.3 N-m | 2.655 in lb

Impact Test Method IEC 60794-1-21 E4

**Strain** See long and short term tensile loads

Strain Test Method IEC 60794-1-21 E1

Twist 10 cycles

Twist Test Method IEC 60794-1-21 E7

**Vertical Rise, maximum** 492 m | 1,614.173 ft

Optical Specifications

**Fiber Type** G.652.D | G.652.D and G.657.A1

### **Environmental Specifications**

Installation temperature-30 °C to +70 °C (-22 °F to +158 °F)Operating Temperature-30 °C to +70 °C (-22 °F to +158 °F)Storage Temperature-30 °C to +75 °C (-22 °F to +167 °F)

 Cable Qualification Standards
 IEC 60794-5-10

**Environmental Space** Air-blown, microduct

Jacket UV Resistance UV stabilized

Water Penetration 24 h

Water Penetration Test Method IEC 60794-1 F4

#### **Environmental Test Specifications**

Cable Freeze-2 °C | 28.4 °FCable Freeze Test MethodIEC 60794-1 F15Drip70 °C | 158 °F

**Drip Test Method** IEC 60794-1-21 E14

Heat Age Test Method IEC 60794-1-22 F9

**Low High Bend** -30 °C to +60 °C (-22 °F to +140 °F)

-30 °C to +85 °C (-22 °F to +185 °F)

**Low High Bend Test Method** IEC 60794-1-21 E11

**Temperature Cycle**  $-30 \,^{\circ}\text{C} \text{ to } +70 \,^{\circ}\text{C} \, (-22 \,^{\circ}\text{F to } +158 \,^{\circ}\text{F})$ 

**Temperature Cycle Test Method** IEC 60794-1-22 F1

Packaging and Weights

**Heat Age** 

Cable weight 22 kg/km | 14.783 lb/kft

### Regulatory Compliance/Certifications

Agency Classification

CHINA-ROHS Below maximum concentration value

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

REACH-SVHC Compliant as per SVHC revision on www.commscope.com/ProductCompliance

ROHS Compliant UK-ROHS Compliant



### Included Products

CS-8W-250-EMEA – LightScope ZWP® Singlemode Fiber 250um

### \* Footnotes

**Operating Temperature** Specification applicable to non-terminated bulk fiber cable



# CS-8W-250-EMEA | 250um

### LightScope ZWP® Singlemode Fiber



#### **Product Classification**

 Portfolio
 CommScope®

 Product Type
 Optical fiber

### General Specifications

**Cladding Diameter** 125 µm **Cladding Diameter Tolerance**  $\pm 0.7 \, \mu m$ Cladding Non-Circularity, maximum 0.7 % **Coating Diameter (Colored)** 249 µm **Coating Diameter (Uncolored)** 242 µm **Coating Diameter Tolerance (Colored)** ±13 µm **Coating Diameter Tolerance (Uncolored)** ±5 µm Coating/Cladding Concentricity Error, maximum 12 µm Core/Clad Offset, maximum  $0.5 \, \mu m$ 

**Proof Test** 689.476 N/mm² | 100000 psi

#### **Dimensions**

Fiber Curl, minimum 4 m | 13.123 ft

# Mechanical Specifications

 Macrobending, 20 mm Ø mandrel, 1 turn
 0.75 dB @ 1,550 nm
 1 1.50 dB @ 1,625 nm

 Macrobending, 30 mm Ø mandrel, 10 turns
 0.25 dB @ 1,550 nm
 1 1.00 dB @ 1,625 nm

 Macrobending, 60 mm Ø mandrel, 100 turns
 0.05 dB @ 1,550 nm
 1 0.05 dB @ 1,625 nm

Coating Strip Force, maximum8.9 N | 2.001 lbfCoating Strip Force, minimum1.3 N | 0.292 lbf

# CS-8W-250-EMEA | 250um

Dynamic Fatigue Parameter, minimum 20

Optical Specifications

Cabled Cutoff Wavelength, maximum1250 nmPoint Defects, maximum0.05 dB

**Zero Dispersion Slope, maximum** 0.092 ps/[km-nm-nm]

Zero Dispersion Wavelength, maximum1324 nmZero Dispersion Wavelength, minimum1300 nm

Optical Specifications, Wavelength Specific

**Attenuation, maximum** 0.21 dB/km @ 1,550 nm | 0.24 dB/km @ 1625

nm | 0.25 dB/km @ 1,490 nm | 0.35 dB/km @ 1,310

nm | 0.35 dB/km @ 1,385 nm

**Dispersion, maximum** 18 ps(nm-km) at 1550 nm | 2.2 ps(nm-km) at 1625

nm | 3.5 ps(nm-km) from 1285 nm to 1330 nm at 1310

nm

**Index of Refraction** 1.467 @ 1,310 nm | 1.468 @ 1,550 nm

 $\textbf{Mode Field Diameter} \hspace{1.5cm} 10.4~\mu\text{m} \ \textcircled{@} \ 1,550~\text{nm} \hspace{0.2cm} | \hspace{0.2cm} 9.2~\mu\text{m} \ \textcircled{@} \ 1,310~\text{nm}$ 

**Mode Field Diameter Tolerance**  $\pm 0.4 \,\mu\text{m}$  @ 1310 nm |  $\pm 0.5 \,\mu\text{m}$  @ 1550 nm

Polarization Mode Dispersion Link Design Value, maximum 0.06 ps/sgrt(km)

Standards Compliance ITU-T G.652.D | ITU-T G.657.A1

**Environmental Specifications** 

Heat Aging, maximum 0.05 dB/km @ 85 °C

 Temperature Dependence, maximum
 0.05 dB/km

 Temperature Humidity Cycling, maximum
 0.05 dB/km

Water Immersion, maximum 0.05 dB/km @ 23 °C

\* Footnotes

**Temperature Dependence, maximum** Temperature dependence is conducted at -60 °C to +85 °C (-76 °F to +185 °F)

Temperature Humidity Cycling, maximum Temperature humidity cycling is conducted at -10 °C to +85 °C (+14 °F to +185 °F)

up to 95% relative humidity

COMMSC PE®