

Universal loose Tube Cables contain all the fibres within a 6.4 mm diameter single tube construction for up to 16 fibres. For cables up to 24 fibres a larger 7.5 mm diameter single tube construction is used. All of the individually coloured primary coated 250µm fibres are contained within a single gel filled polymeric loose tube, which is then strengthened with rodent resistant E-glass strength members and over-sheathed with Universal LSZH for internal / external applications.

Features:

- Compact construction for optimum space utilisation
- Totally non-metallic – light and easy to install
- ULSZH flame retardant outer jacket
- Subunits and fibres coloured coded according to TIA/EIA-569
- Longitudinal waterblocking
- Temperature range:
 - transport / storage : -40°C to 70°C
 - installation / storage : -5°C to 60°C
 - operation : -20°C to 70°C
- Crush resistance : 2000 N
- Impact resistance : 2J
- Finished cable attenuation:
 - 1310nm : 0.40 dB/km
 - 1380 – 1386 nm : 0.40 dB/km
 - 1550nm : 0.25dB/km

Standards:

- Cable properties IEC 60794
- Flammability IEC 60332 parts 1 &3
- Smoke Emission IEC 61034 parts 1 & 2
- Acid Gas Emission IEC 60754 parts 1 & 2
- Toxicity NES 713

Applications

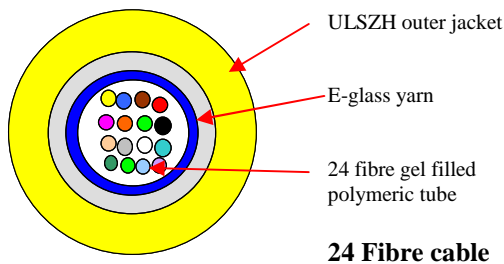
Ideal for use inside buildings where flexibility and compact diameters are required. Ducted intra-building links in a campus environment are possible. Also suitable for outdoor designs with intermittent flooding or moisture exposure.

Options

- Rodent deterrent masterbatch additive

Cable Legend

CommScope Optical Cable [TPN] [No. of fibres] x 9/125 OS2 ULSZH [Batch No.] [metre mark]



Jacket; Standard colour yellow: Part number suffix -6
Other colours available.
Tube Colour; Blue
Fibre Colours;
Upto 12 fibres; Blue, orange, green, brown, grey, white, red, black, yellow, violet, pink, turquoise
16 fibres; As 12 fibres + the first four repeated with black band.
24 fibres; As 12 fibres + repeated with black band except for the black which is replaced by white

Mechanical Characteristics

Fibre Count	Nominal Cable Diameter (mm)	Nominal weight (kg/km)	Tensile Strength (N)	Min. Installation Bend Radius (mm)	Static Bend Radius (mm)	Combustion Energy (MJ/m)	Part Number
2	6.4	48	1250	140	130	0.80	1593092-6
4	6.4	48	1250	140	130	0.80	1593095-6
6	6.4	48	1250	140	130	0.80	1593098-6
8	6.4	48	1250	140	130	0.80	1593101-6
12	6.4	48	1250	140	130	0.80	1593107-6
16	6.4	48	1250	140	130	0.80	1593110-6
24	8.0	62	1250	150	140	1.20	1593044-6

Singlemode fibre specification

The fibre complies with international standards IEC 60793-2-50, family specification B1.3, TIA-455 and ITU-T.G.652.C and G.652.D.

Optical characteristic

Wavelength	Units	Value
Chromatic dispersion @ 1310 nm	ps/(nm.km)	≤ 3.5
Chromatic dispersion @ 1550 nm	ps/(nm.km)	≤ 18.0
Mode field diameter @ 1310 nm	μm	9.2 ± 0.4
Mode field diameter @ 1550 nm	μm	10.4 ± 0.8
Polarisation Mode Dispersion (PMD)	ps(km) ^{-0.5}	Link design value: ≤0.1 Max. Individual fibre: ≤ 0.2
Cable fibre cut-off wavelength	Nm	≤1260
Zero Dispersion wavelength	Nm	≥1302 and ≤ 1324
Group index of refraction	1310 nm	1.467
	1550 nm	1.468

Link lengths

Parameter	Units	Value
Gigabit Ethernet length 1000BASE-LX	(m)	2 – 5000
Ten Gigabit Ethernet length	10GBASE-LR 1310 nm	(m) 2 – 10000
	10GBASE-ER 1550 nm	(m) 2 – 30000
		(m) 2 - 40000 (engineered links)
	10GBASE-LX4 1310 nm	(m) 2 – 10000
	10GBASE-LW 1310 nm	(m) 2 – 10000
	10GBASE-EW 1550 nm	(m) 2 – 40000

Fibre Geometry

Parameter	Units	Value
Maximum cladding diameter	μm	125 ± 0.7
Cladding Non-circularity	%	≤ 0.7
Coating diameter	μm	245 ± 5
Coating concentricity error	μm	≤ 12.5
Core / cladding concentricity error	μm	≤ 0.5

Testing

Parameter	Units	Value
Proof test	%	1

Macrobending loss

Bend Diameter (mm)	No Turns	Wavelength (nm)	Attenuation
60	100	1625	≤ 0.05 dB

Environmental specification

Parameter	Wavelength	Units	Value
Temperature dependence (-60 °C to +85 °C)	1310, 1550 & 1625 nm	(dB/km)	0.05
Temperature and Humidity Cycling (-10 °C to +85 °C, up to 95 % RH)	1310, 1550 & 1625 nm	(dB/km)	0.05