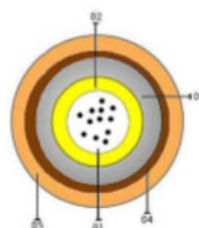
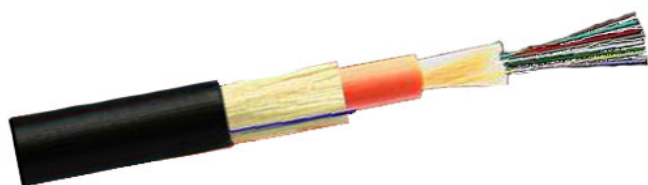


FO cable for mobile use for indoor and outdoor 12G50/125µm OM4 for MPO IP68 assembly



**Cable description**  
01. SubUnit  
02. Aramid yarns  
03. Inner Jacket  
04. Strength members  
05. Outer Jacket

## tde - Standard FO Cables

The standard fiber optic cable types of tde specifically for the assembling of patch and adapter cables, pigtails and trunk cables has been developed. Also the use in FTTH applications inside buildings is possible. The breakout cables have up to 24 individual elements with a 2mm diameter. The overall cable diameter is very slim.

These cables are characterized by very good termination properties. The cable jacket and the secondary coating are easy removable.

### Applications

- Indoor / Data Centres
- Suitable for multi fiber connectors (MPO) according to IEC 61754-7-1

### Advantages

- Flexible



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- Resilient
- Totally dielectric

## Technical Data

SubUnit Ø	1350 ± 50µm (12 fibers)
Strength members	Aramid Yarns
Inner jacket	Termoplastic LSZH (Halogen free, low smoke emission, flame retardant compound)
Inner jacket Colour	Magenta (RAL 4003)
Outer jacket	PU-HFFR (Special Polyurethane, halogen free, flame retardant)
Outer jacket Colour	Black
Weight	31 kg/km
Outer Ø	7.0 ± 0.4 mm
Tensile Load	500 N (Permanent)/ 900 N (Installation)
Max. crush	300 N/10cm
Temperature Range	-20°C to +70°C
Min. Bending Radius	5 x Outer Ø (Operation) / 15 x Outer Ø (Installation)
Max. Length	2000 m
Standards	Environmental and mechanical tests according to EN 187000 and IEC 60794-1-2
Identification Mark	"t d e – A-V(ZN)H(ZN)11Y 12G50-OM4"

## FO Fiber

Type	Corning ClearCurve® 50/125µm OM4 multimode fiber
Optimized Data Rate over Distance	40/100 Gb over 170 m* 10 Gb/s over 550 m 1 Gb/s over 1100 m
Standard Compliance	ISO/IEC 11801: type OM4 fiber** IEC 60793-2-10: type A1a.3 fiber** TIA/EIA: 492AAAD ITU: ITU G651.1
*	Distances specified in the 40G/100G per IEEE 802.3ba standard are 150m on OM4 and 100m on OM3; Corning fibers are manufactured to tighter dispersion specifications and thereby support the extended distances shown in the table (assuming cable attenuation ≤3.0 dB/km and same 1.0 dB of connector loss for OM3 that the standard requires for OM4)
**	Assumes IEC draft standard is harmonized with 492AAAD which was approved by TIA

## Optical Specifications

Bandwidth	High Performance EMB* (MHz.km): 4700 at 850 nm only Legacy Performance EMB** (MHz.km): 3500 at 850 nm / 500 at 1300 nm
Attenuation	At 850 nm max. ≤ 2.3 dB/km At 1300 nm max. ≤ 0.6 dB/km
Macrobend Loss	Mandrel Radius (mm): 37.2 / 15 / 7.5 Number of Turns: 100 / 2 / 2 Induced Attenuation (dB) at 850 nm: ≤ 0.05 / ≤ 0.1 / 0.2 Induced Attenuation (dB) at 1300 nm: ≤ 0.15 / ≤ 0.3 / ≤ 0.5
Numerical Aperture	0.200 ± 0.015

## FO cable for mobile use for indoor and outdoor 12G50/125µm OM4 for MPO IP68 assembly

*	Ensured via miniEMBc, per TIA/EIA 455-220A and IEC 60793-1-49, for high performance laser-based systems (up to 10Gb/s)
**	OFL BW, per TIA/EIA 455-204 and IEC 60793-1-41, for legacy and LED-based systems (typically up to 100 Mb/s)

### Dimensional Specifications

Core Diameter	50.0 ± 2.5 µm
Cladding Diameter	125.0 ± 1.0 µm
Core-Clad Concentricity	≤ 1.5 µm
Cladding Non-Circularity	≤ 1.0%
Core Non-Circularity	≤ 5.0%
Coating Diameter	242 ± 5 µm
Coating-Cladding Concentricity	< 12 µm

### Environmental

Environmental Test	Test Condition	Induced Attenuation 850 nm & 1300 nm (dB/km)
Temperature Dependence	-60°C to +85°C	≤ 0.10
Temperature Humidity Cycling	-10°C to +85°C and 4% to 98% RH	≤ 0.10
Water Immersion	23°C ± 2°C	≤ 0.20
Heat Aging	85°C ± 2°C	≤ 0.20
Damp Heat	85°C at 85% RH	≤ 0.20
Operating Temperature Range	-60°C to +85°C	

### Mechanical Specifications

Proof Test	The entire fiber length is subjected to a tensile stress ≥ 100 kpsi (0.7 GN/m²).
Length	Fiber lengths available up to 17.6 km/spool.

### Performance Characterizations

Refractive Index Difference	1%
Effective Group Index of Refraction	850 nm: 1.480 1300 nm: 1.479
Fatigue Resistance Parameter (nd)	20
Coating Strip Force	Dry: 0.6 lbs (2.7N) Wet: 14 days in 23°C water soak: 0.6 lbs (2.7N)
Chromatic Dispersion	Zero Dispersion Wavelength ( $\lambda_0$ ): 1295 nm ≤ $\lambda_0$ ≤ 1315 nm Zero Dispersion Slope ( $S_0$ ): ≤ 0.101 ps/(nm²*km)

## Product variants & accessories

Art.-No.	Description
L-A-VZNHZN11Y12G50-4	FO cable for mobile use for indoor and outdoor 12G50/125µm OM4 for MPO IP68 assembly