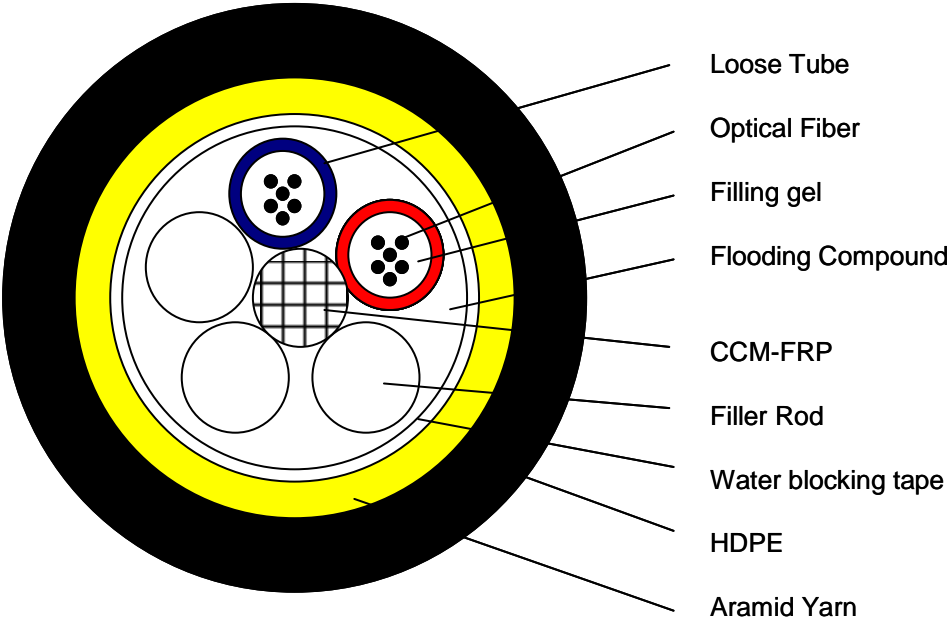


12-Fiber ADSS Multimode 50um OM3



Product Description:

Technical specifications for Aerial and Duct Application Non-Metallic type cable. This specification covers the general requirements and performance of cable, which FOC offered including optical characteristics, mechanical characteristics and geometrical characteristics.

Optical fiber characteristics

Item	Specification
Type of Fiber	Multi mode
Fiber Material	Dope Silica
Attenuation Coefficient:	<ul style="list-style-type: none"> • ≤ 0.36 dB/km • @1310nm • @1383nm • @1550nm • @1625nm • ≤ 0.22 dB/km • ≤ 0.30 dB/km
Point Discontinuity:	≤ 0.05 dB

Cable Cut-off wavelength:	≤ 1260 nm
Zero-dispersion slope:	≤ 0.093 ps/(nm ² .km)
Chromatic dispersion <ul style="list-style-type: none"> @ 1288 ~ 1339 nm @ 1271 ~ 1360 nm @ 1550 nm @ 1625 nm 	<ul style="list-style-type: none"> ≤3.5 ps/(nm. Km) ≤5.3 ps/(nm. km) ≤18 ps/(nm. km) ≤22 ps/(nm. km)
PMDQ (Quadrature average*)	≤0.2 ps/km ^{1/2}
Fiber Core diameter	50 μm
Core / Cladding concentricity error	≤ 0.5 μm
Cladding non-circularity	≤1.0%
Proof test level	100 kpsi (=0.69 Gpa), 1%
Temperature dependence 0oC~ +70oC @ 1310 & 1550nm	≤ 0.1 dB/km

PMDQ is a link of 20 cable sections (M) and a probability level of 0.01%

Performance of Optical Cable

- Cable bending radius:
- 10 x cable diameter (static)
 - 20 x cable diameter (dynamic)

- Application temperature range:
- Operating temperature range :-40oC to +70oC
 - Storage / Transport temperature range :-50oC to +70oC
 - Installation temperature range :-30oC to +50oC

Fiber coding

No. of fiber	1	2	3	4	5	6
Color	Blue	Orange	Green	Brown	Gray	White
No. of fiber	7	8	9	10	11	12
Color	Red	Black	Yellow	Violet	Pink	Aqua

Loose Tube (LT) & filler rod (FR) color code

Fiber No.	Element No.							
	1	2	3	4	5	6	7	8
12	LT	LT	FR	FR	FR	-	-	-

Cable Structure and Parameter

No. of Fibers	Max. fiber number per tube	Total unit number (LT + FR)	Sheath thickness (nominal*)	Outer Diameter (nominal*)	Weight (approx.)
			mm	mm	Kg/km
12	6	5 (2LT + 3FR)	2.0	10.6	89

FRP Diameter	Loose Tube Diameter	Loose Tube Thickness	Filler Rod Diameter
mm	mm	mm	mm
1.8	2.2	0.38	2.2

Test Requirements

No	Item	Test standard	Method	Acceptance criteria
1	Tensile test	IEC-794-1-E1	- Load: Short term: 1,500 N - Length of cable under load: 50 m	- Loss change ≤ 0.1 dB @ 1550 nm - No fiber break and no sheath damage.
2	Crush test	IEC-794-1-E3	- Load: 1,000 N/100 mm - Load time: ≥1min.	- Loss change ≤ 0.1 dB @ 1550 nm - No fiber break and no sheath damage.
3	Impact Resistance	IEC-794-1-E4	- Points of impact: 5 - Times of per point: 5 - Impact energy: 4.5 N.m - Radius of hammer head: 12.5mm - Impact rate: 2 sec/cycle	- Loss change ≤ 0.1 dB @ 1550 nm - No fiber break and no sheath damage.
4	Repeated bending	IEC-794-1-E6	- Bending radius: 20 x cable diameter - Load: 150 N - Flexing rate: 3 sec/cycle - No. of cycle: 30	- Loss change ≤ 0.1 dB @ 1550 nm - No fiber break and no sheath damage.

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5	Torsion test	IEC-794-1-E7	<ul style="list-style-type: none">- Length: 1 m- Load: 150 N- Twist rate: 1 min/cycle- Twist angle: $\pm 180^\circ$- No. of cycle: 10	<ul style="list-style-type: none">- Loss change ≤ 0.1 dB @ 1550 nm- No fiber break and no sheath damage.
6	Water penetration test	IEC-794-1-F5	<ul style="list-style-type: none">- Height of water: 1 m- Sample length: 3 m- Test time: 24 hours	<ul style="list-style-type: none">- No water shall have leaked from the opposite end of cable.
7	Temperature cycling test	IEC-794-1-F1	<ul style="list-style-type: none">- Temperature step: $+20^\circ\text{C} \rightarrow -40^\circ\text{C} \rightarrow +70^\circ\text{C} \rightarrow +20^\circ\text{C}$- Time per each step: 12 hrs- Number of cycle: 2	<ul style="list-style-type: none">- Loss change ≤ 0.05 dB/km @ 1550 nm- No fiber break and no sheath damage.
8	Compound Flow	IEC 794-1-E14	<ul style="list-style-type: none">- Sample length: 30 cm- Temp: $70^\circ\text{C} \pm 2^\circ\text{C}$- Time: 24 hours	<ul style="list-style-type: none">- No compound flow
9	Sheath High Voltage Test		<ul style="list-style-type: none">- On line test- 9t KV (t-sheath thickness)	<ul style="list-style-type: none">-No sheath breakdown

Ordering Information:

Part Number	Description
NEW-9495012	12-Fiber ADSS Multimode 50um OM3