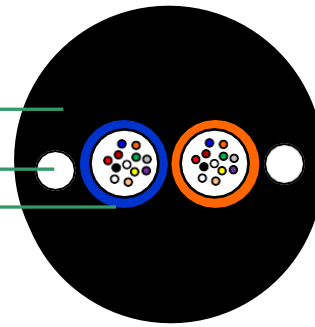


24F SM Uni Tube (FRP) Optic Fiber Cable

Cable Cross Sectional View:

Outer Sheath
(HDPE) FRP Rods
Loose Tube with
Fibers and Jelly



A	Cable Construction	
Sr	Parameters	24F
1	Number of Fibers per Tube	12
2	Loose Tubes	PBTP, 2 Nos.
3	Loose Tube Filling	Thixotropic jelly
4	Strength Member	FRP (2 Nos.) embedded in Sheath (1.0 mm FRP)
5	Outer Sheath	HDPE (Black)
6	Cable Diameter in mm	7.5 mm +/- 0.5 mm (Nominal)
7	Weight of Cable (Kg/Km)	50 kg/km +/- 5 kg (Nominal)

B	Fiber Identification	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Pink, Natural / Aqua
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C	Loose Tube Identification	One Color and One Natural
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D	1. Tensile Strength	400N/10cm
	2. Crush Resistance	1000N/10cm
	3. Impact Strength	25 Nm
	4. Temp Range	-30°C to +70°C
	5. Bend Radius (Short / Long Term)	10D / 20D, D=Cable Diameter

E	Packing	3.0 / 4.0 km Nominal (or as per requirement)
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F	Identification on Cable	As per requirement
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G	Fiber Characteristics	
Sr.	Parameters	Specified values
	Type of Fiber	Single Mode Step Index Optical Fiber
1	Mode Field Diameter @ 1310 nm	$9.3 \pm 0.5 \mu\text{m}$
2	Core - Clad Concentricity Error	$< 0.6 \mu\text{m}$
3	Cladding Diameter	$125 \pm 0.7 \mu\text{m}$
4	Cladding Non-Circularity	$< 0.8 \%$
5	Coating Diameter – (Natural Fiber)	$245 \pm 10 \mu\text{m}$
		Optical Characteristics
6	Attenuation @ 1310 nm	$< 0.36 \text{ dB/Km}$
7	Attenuation @ 1550 nm	$< 0.23 \text{ dB/Km}$
8	Dispersion @ Range 1285nm – 1330nm @ Range 1270nm – 1340nm @ 1550nm	$\leq 3.5 \text{ ps / (nm.km)}$ $\leq 5.3 \text{ ps / (nm.km)}$ $\leq 18.0 \text{ ps / (nm.km)}$
9	Cut – Off Wavelength – Fiber	$< 1320 \text{ nm}$



10	Polarization Mode Dispersion (PMD) @ 1310 nm - 1550 nm – Bare Fiber	$< 0.3 \text{ ps} / \sqrt{\text{km}}$
11	Zero Dispersion Slope	$\leq 0.092 \text{ ps} / (\text{nm}^2 \cdot \text{km})$
12	Zero Dispersion wavelength Range	1300 – 1324 nm

