Unmet OUTDOOR FIBER OPTIC CABLE

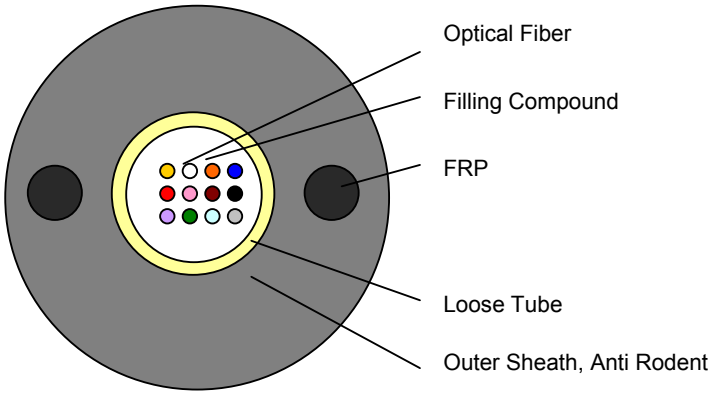
Unmet™ Universal Network Communication

Part NO. UFRPS050X

Cable Construction & Description

Loose Tube Fiber Optic Cable
MM, 2~ 12C, Single Jacket, Single Armored,
x is Number of Cores & X<= 12

Cable Cross Section



Application

Duct, Aerial

Identification of optical fiber & Loose Tube

Optical Fiber				Loose Tube
1	Blue	7	Red	White
2	Orange	8	Black	
3	Green	9	Yellow	
4	Brown	10	Violet	
5	Grey	11	Pink	
6	White	12	Aqua	

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Cable Information

Fiber Coloring: UV Curable Acrylic Color Ink

No. of Tube: 1 Tubes

No. of fiber/Tube: Max. 12 Fibers

Loose Tube Material: PBT

Filling compound (Tube): Thixotropic Jelly

Strength Member: Steel Wire(Nom. 2.3mm Dia.)

Water Blocking: Water Swell able Material

Outer Sheath: Nom. 3.8mm Thick. Black MDPE

Cable Marking: Cable type, Fiber Counts, Name of Manufacturer, Year of Manufacturing, Cable Length in meter

Cable Outside Diameter: Nom. 10.4mm

Cable Weight: Approx. 90 kg/km

Packing: Export Wooden Drum

Bending Radius:
Static: 10D (Diameter of cable)
Dynamic: 20D (Diameter of cable)

Optical Fiber Performance

1. Optical & Geometrical Performance

Core Diameter: 50 ± 2.5µm
Cladding Diameter: 125 ± 1µm
Cladding Non-Circularity: ≤ 1%
Coating Diameter : 245 ± 10µm
Coat/Clad Concentricity Error: ≤ 12µm
Core/Clad Concentricity Error: ≤ 1.5µm
Coating Dia. Non-Circularity Error: ≤ 6%
Attenuation Coefficient: ≤ 2.7dB/km at 850nm, ≤ 0.8dB/km at 1300nm
Band Width: ≥ 400MHz.km at 850nm, ≥ 800MHz.km at 1300nm
Numerical Aperture: 0.20 ± 0.015
Point Discontinuity: ≤ 0.1 dB at 850 & 1300nm
Effective Group Index of: 1.482 at 850nm
Refraction (Neff): 1.477 at 1300nm
Type of Fiber Core: GIMM50

2. Mechanical & Environmental Performance

Proof Test Level: ≥ 0.69 GPa (≥100kpsi)
Macro bending (at 75mm dia. x100 turns): ≤ 0.5 dB at 850&1300nm
Temperature Dependence (-60°C to 85°C): ≤ 0.10 dB/km at 850&1300nm
Damp Dependence (+80°C,85%RH for 30Days): ≤ 0.20 dB/km at 850&1300nm
Water soak Dependence (+20°C for 30Days): ≤ 0.20 dB/km at 850&1300nm

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Mechanical & Environmental Performance

Item	Reference	Test Condition	Acceptance Criteria
Tensile Strength	IEC 794-1-E1	Long Term: 1000N, Short Term: 3000N	Attenuation Increase: ≤0.05dB
Crush	IEC 794-1-E3	Loading: 5000N/100mm	Attenuation Increase: ≤0.05dB
Impact	IEC 794-1-E4	Loading: 10N.m , Cycle: 5	Attenuation Increase: ≤0.05dB
Repeated Bend	IEC 794-1-E6	Bending Radius: X 20D, Cycle: 30	Attenuation Increase: ≤0.05dB
Torsion	IEC 794-1-E7	Length: 1m, Torsion angle: ±180, Cycle:10	Attenuation Increase: ≤0.05dB
Cable Bend	IEC 794-1-E11	Bending Radius: X 10D, Cycle: 10, Turns:5	Attenuation Increase: ≤0.05dB
Temp. Cycling	IEC 794-1-F1	Step:+20°C->-40°C°C- >+70°C->+20°C, 24Hrs	Attenuation Increase: ≤0.1dB/km
Water Penetration	IEC 794-1-F5	Length: 1m, Height: 1m, Times: 24Hrs	No Leakage