

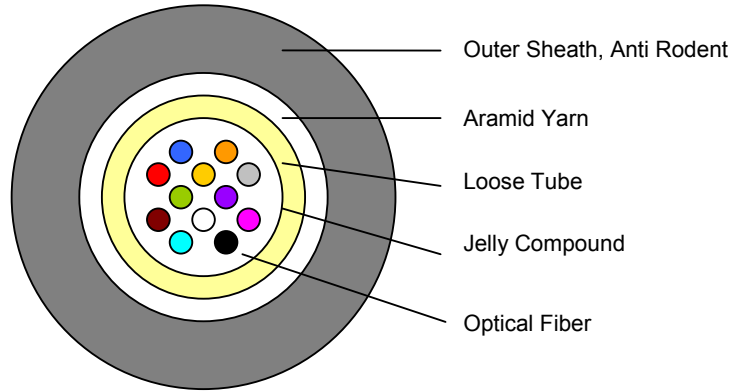
Part No. URP09XFIO



Cable Description

X is number of cores and $x \leq 12$
 SM, 2~12C, Flame-Retardant Jacket, Rodent protect, All Dielectric

Cable Cross Section



Application

Indoor/Outdoor

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	

URP09XFIO

Optical Fiber Performance

1. Optical & Geometrical Performance

- Mode Field Diameter:** $9.3 \pm 0.5\mu\text{m}$ at 1310nm
- Mode Field Concentricity Error:** $\leq 0.8\mu\text{m}$
- Cladding Diameter:** $125 \pm 1\mu\text{m}$
- Cladding Non-Circularity:** $\leq 1\%$
- Coating Diameter :** $245 \pm 10\mu\text{m}$
- Coating Non-Circularity Error:** $\leq 6\%$
- Attenuation Coefficient:** $\leq 0.36\text{dB/km}$ at 1310nm, $\leq 0.22\text{dB/km}$ at 1550nm
- Chromatic Dispersion:** $\leq 3.5\text{ps/nm/km}$ at 1285~1330nm, $\leq 18\text{ps/nm/km}$ at 1550nm
- Cut-off Wavelength (Acc):** $\leq 1260\text{nm}$
- Zero Dispersion Wavelength:** 1300 ~ 1322nm
- PMD Coefficient:** $\leq 0.2\text{ps}/\sqrt{\text{km}}$
- Point Discontinuity:** $\leq 0.05\text{dB}$ at 1310 & 1550nm
- Effective Group Index of:** 1.4677 at 1310nm (Typical)
- Refraction (Neff):** 1.4682 at 1550nm (Typical)

2. Mechanical & Environmental Performance

- Proof Test Level:** $\geq 0.69\text{GPa}$ ($\geq 100\text{kpsi}$)
- Macro bending (at 75mmdia. x100 turns):** $\leq 0.05\text{dB}$ at 1550nm
- Temperature Dependence (-60°C to 85 C) :** $\leq 0.05\text{dB/km}$ at 1550nm
- Damp Dependence (+80°C,85%RH for 30Days):** $\leq 0.05\text{dB/km}$ at 1550nm
- Water soak Dependence (+20°C for 30Days):** $\leq 0.05\text{dB/km}$ at 1550nm

Cable Description

- **Fiber Coloring:** UV Curable Acrylic Color Ink
- **No. of Tube:** 1Tubes
- **No. of fiber/Tube:** Max. 12 Fibers
- **Loose Tube Material:** PBT
- **Filling compound (Tube):** Thixotropic Jelly
- **Strength Member:** Aramid Yarn
- **Outer Sheath:** Flame-Retardant PVC, Nom.1.0mm Thick.
- **Cable Marking:** Cable type, Fiber Counts, Name of Manufacturer, Year of Manufacturing, Cable Length in meter
- **Cable Outside Diameter:** Nom. 6.0mm
- **Cable Weight:** Approx. 35kg/km
- **Packing:** Export Wooden Drum
- **Bending Radius:**
 - Static: 10D (Diameter of cable)
 - Dynamic: 20D (Diameter of cable)

URP09XFIO

Mechanical & Environmental Performance

Item	Reference	Test Condition	Acceptance Criteria
Tensile Strength	IEC 794-1-E1	Long Term: 300N Short Term: 1000N	Attenuation Increase: ≤0.1dB
Crush	IEC 794-1-E3	Loading: 1000N/100mm	Attenuation Increase: ≤0.1dB
Impact	IEC 794-1-E4	Loading: 1N.m Cycle: 5	Attenuation Increase: ≤0.1dB
Repeated Bend	IEC 794-1-E6	Bending Radius: X 20D Cycle: 30	Attenuation Increase: ≤0.1dB
Torsion	IEC 794-1-E7	Length: 1m Torsion angle: ±180 Cycle:20	Attenuation Increase: ≤0.1dB
Temp. Cycling	IEC 794-1-F1	Step: +20°C->-20°C<->+60°C->+20°C, 24Hrs	Attenuation Increase: ≤0.1dB/km