

Product Description 3 : Multi Tube Armoured Optical Fiber Cable

KRC Opticals Multi Tube Armoured Optical Fiber Cable is engineered for long-distance networking and high-bandwidth applications where performance, protection, and durability are critical.

The cable features a multi-tube loose design with a central strength member (FRP) ensuring excellent tensile strength, minimal signal attenuation, and long service life. The armored ECCS tape construction provides superior crush resistance and mechanical protection in direct burial, duct, and industrial environments.

Designed and manufactured in accordance with IEC 60793 & IEC 60794 (Part 1 & Part 2), each cable undergoes rigorous internal quality control and Type Testing from NABL Accredited Laboratories, ensuring consistent compliance with telecom-grade reliability and optical performance standards.

Features

- Multi-tube loose structure for enhanced flexibility and stability
- Single or double-layer ECCS tape armoring for superior protection
- Central Strength Member (FRP) ensures mechanical integrity and rodent resistance
- Available with HDPE, LSZH, or FR-LSZH outer jackets for varied environmental conditions
- Excellent optical transmission performance at 1310 nm and 1550 nm (Single Mode)
- Available in 6F, 12F, 24F, 48F, and 96F core configurations
- UV, moisture, and temperature resistant
- Suitable for both outdoor and indoor protected installations
- Designed for ease of termination and splicing

Applications

- Backbone and distribution networks
- LAN/WAN and data center connectivity
- Telecom infrastructure and broadband networks
- Industrial automation and instrumentation cabling
- Direct burial and duct installations
- FTTx and long-distance transmission systems

Technical Standards

Manufactured and tested as per:

- **IEC 60793** – Optical Fiber Specifications
- **IEC 60794 Part 1 & Part 2** – Optical Fiber Cable Design & Test Methods
- **Internal Testing:** Conducted as per in-house QAP (Quality Assurance Plan)
- **Type Testing:** Performed from NABL Accredited Laboratories

Testing

All KRC Opticals cables undergo a dual-stage verification process:

1. **Internal Testing:** 100% routine checks for attenuation, concentricity, mechanical stress, and jacket integrity.
2. **External Type Testing:** Conducted through NABL-accredited facilities to validate compliance with international optical and mechanical standards.

Cable Design Parameters

Parameter	Specification
Cable Type	Multi Tube Armoured Optical Fiber Cable
Cable Diameter	9 mm ~ 14 mm (depending on core count and customer requirements)
Weight	As per industry standards, subject to cable configuration
Jacket Material Options	HDPE / LSZH / FR-LSZH
Standard Jacket Colour	Black (other colours optional)
Strength Member	Central FRP (Fiber Reinforced Plastic)
Protection / Sheath Options	Single Sheath Armored with ECCS Tape & also available in Double Sheath Double Armored configuration
Core Count Options	6F, 12F, 24F, 48F, 96F
Fiber Type (Single Mode)	G-652D – Operating at 1310 nm & 1550 nm
Fiber Type (Multi Mode)	OM1 / OM2 / OM3 / OM4 / OM5 – Operating at 850 nm ~ 1300 nm
Installation Method	Direct Burial / Duct / Aerial (as per design)
Operating Temperature	-40°C to +70°C
Bend Radius (Static/Dynamic)	10x OD / 20x OD

Why Choose KRC Optical

KRC Optical is a trusted name in fiber connectivity and networking infrastructure, offering ISO-certified manufacturing, NABL-tested products, and customized cabling solutions engineered to meet the stringent demands of telecom, broadband, and enterprise networks.

Every KRC Optical Fiber Cable is designed for precision, reliability, and long-term performance, aligning with international quality benchmarks and Make-in-India excellence.

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Product Description 4: Multi Tube Unarmored Optical Fiber Cable

The KRC Opticals Multi Tube Unarmored Optical Fiber Cable is engineered for reliable high-speed data transmission in protected environments such as conduits, ducts, and indoor network installations. Designed with a multi-tube loose structure and a central strength member (FRP), this cable ensures superior mechanical strength, minimal signal loss, and stable optical performance across long distances.

The unarmored single-sheath construction offers a lightweight and flexible solution ideal for environments where mechanical protection is not critical but high optical integrity and bend performance are required.

Manufactured in accordance with IEC 60793 & IEC 60794 (Part 1 & Part 2) standards, every cable undergoes stringent in-house testing and Type Testing through NABL Accredited Laboratories to guarantee compliance with telecom-grade quality and optical consistency.

Features

- Multi-tube loose structure for high core density and flexibility
- Lightweight unarmored single sheath design for easy installation
- Central FRP strength member for tensile reinforcement and kink resistance
- Optional HDPE, LSZH, or FR-LSZH jackets for varied installation environments
- Excellent optical performance for Single Mode (G-652D) and Multi Mode (OM1–OM5) fibers
- Available in 6F, 12F, 24F, 48F, and 96F fiber configurations
- Resistant to UV, moisture, and temperature variations
- Easy stripping and splicing for field technicians
- Suitable for indoor/outdoor conduit applications where lightweight, high-performance cabling is essential

Applications

- LAN / WAN and enterprise network backbones
- Data centers and internal telecom distribution systems
- FTTx (FTTH, FTTB, FTTO) network deployments
- Duct and conduit installations
- Industrial network communication systems
- Campus and building connectivity networks

Technical Standards

Manufactured and tested in accordance with:

- IEC 60793 – Optical Fiber Specifications
- IEC 60794 (Part 1 & Part 2) – Optical Fiber Cable Design & Test Methods
- Internal Testing: As per KRC Optical's in-house Quality Assurance Plan (QAP)
- Type Testing: Conducted through NABL Accredited Laboratories

Testing

KRC Optical's ensures full-cycle quality verification through:

1. **Internal Routine Testing** – Checks on attenuation, fiber geometry, mechanical endurance, and jacket uniformity.
2. **Type Testing (Third-Party)** – Comprehensive validation through **NABL accredited labs**, confirming compliance with IEC optical, mechanical, and environmental standards.

Cable Design Parameters

Parameter	Specification
Cable Type	Multi Tube Unarmored Optical Fiber Cable
Cable Diameter	9 mm ~ 14 mm (depending on fiber count and jacket type)
Weight	As per industry standards, subject to core configuration
Jacket Material Options	HDPE / LSZH / FR-LSZH
Standard Jacket Colour	Black (other colours optional)
Strength Member	Central Strength Member (FRP)
Sheath Options	Single Sheath Unarmored (also available Double Sheath Unarmored)
Core Count Options	6F, 12F, 24F, 48F, 96F
Fiber Type (Single Mode)	G-652D – Operating at 1310 nm & 1550 nm
Fiber Type (Multi Mode)	OM1 / OM2 / OM3 / OM4 / OM5 – Operating at 850 nm ~ 1300 nm
Installation Method	Duct / Conduit / Protected Pathways
Operating Temperature	-40°C to +70°C
Bend Radius (Static / Dynamic)	10x OD / 20x OD

Why Choose KRC Optical

KRC Optical is a trusted manufacturer of optical fiber and structured cabling systems, offering ISO-certified production, NABL-tested quality, and Make-in-India precision engineering. Each product is crafted to deliver long-term reliability, low signal attenuation, and compliance with global performance benchmarks.

Our fiber solutions empower telecom, broadband, and enterprise networks with high-speed connectivity, robust design, and proven durability, ensuring seamless performance across every installation.

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