



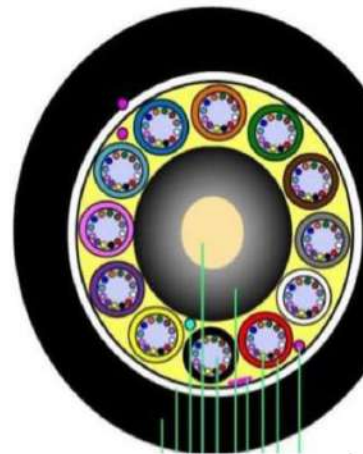
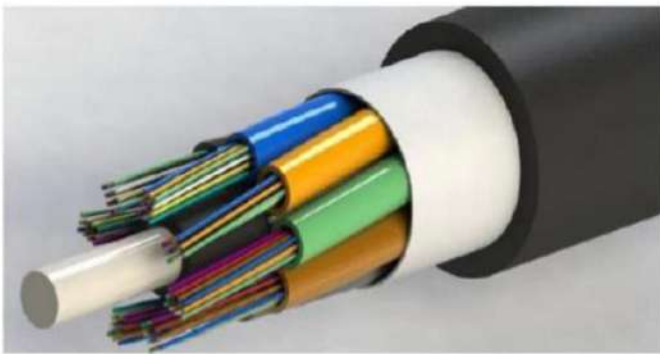
TECHNICAL DATA SHEET

SINGLE MODE G.652.D DUCT TYPE OPTICAL FIBER CABLE

Duct Non-Metallic Dry Core Optical Fiber Cables, the construction of the non-metallic cables begins with our proven loose tube design. The loose tube provides protection against environment and mechanical forces. This is a light weight cable with smaller diameter and suitable enough for duct and conduit use. These cables are manufactured according to international standard.

Applications: Inter Office Trunking, Data, Video Transmission, Control / Alarm System - Light Weight and Flexible - Laying in Ducts and Concrete.

Cable Constructions: Loose Tube filled with Gel - Stranded around Central Strength Member - Water Blocking Material - Peripheral Strength Members - Polyethylene Outer Jacket



Inner Sheath
Outer Sheath
Water Swellable Tape
Water Blocking Yarns
Central Strength Member
Thixotropic Jelly
Corrugated Steel Tape

Flooding Compound
Polyester Binder Yarns
Loose Tube - PBT
Colored Optic Fiber
Identification Tape
Over Coat

Technical Characteristics

- The unique extruding technology provides the fibers in the tube with good flexibility and bending endurance
- The unique fiber excess length control method provides the cable with excellent mechanical and environmental properties
- Multiple water blocking material filling provides dual water blocking function
- provides good crush resistance

Features & Benefits

- Suitable for conduit and pipelines for long haul applications
- Supports all grades of single Mode & Multimode Fibers
- It can be laid in vicinity of Power Cables
- Telemetry and SCADA Links for Oil & Gas, electricity

CONSTRUCTION PARAMETERS	
Fiber Type	ITU-T G.652.D
Fiber Count	02 to 144 Fibers
Loose Tube Material	PBT
Loose Tube Filling Material	Thixotropic Jelly Terephthalate (PBT)
Central Strength Member	Fiber Reinforced Plastic (FRP)
Peripheral Strength Member (if required)	Glass Yarn
Filler Material	Polyethylene
Core Moisture Protection Methodology	Dry Block Design, Water Blocking Yarns/Tapes
Outer Sheath Material	Medium/High Density Polyethylene (HDPE/MDPE)
Printing on Outer Sheath	Engraved Hot Foil Ink or Inkjet Printing
Drum Length	2000m or 4000m \pm 5%
OPTICAL CHARACTERISTICS	
Single Mode Fiber	CORNING SMF-28e+ G.652D
Fiber Colour Coding	As per TIA/EIA-598AeTc
Mode Field Diameter, μ m	8.6 to 9.5 \pm 0.7
Cladding Diameter, μ m	125 \pm 1
Core Clad Concentricity error, μ m	\leq 0.8 μ m
Cladding Non-Circularity, %	\leq 2 %
Cable Cut-off Wavelength, nm	\leq 1260 nm
Chromatic Dispersion (ps/nm.km)	\leq 3.5 @ 1310nm \leq 18 @ 1550nm
Cabled Attenuation @ 1310 nm (dB/km)	\leq 0.35 (average)
Cabled Attenuation @ 1550 nm (dB/km)	\leq 0.21 (average)
Polarized Mode Dispersion (PMD) ps/f km	\leq 0.2
MECHANICAL CHARACTERISTICS	
Tensile Strength (N) (Max)	3000
Minimum Bending Radius	10 x outer without load
Diameter of cable (mm)	20 x outer with load
Crush Strength (N) (max)	2500
Temperature Range	-20 $^{\circ}$ C to +70 $^{\circ}$ C