

**Technical
Data Sheet**

Central Tube Optical Cables

Standard central tube with 2-12f

Dielectric Messenger Self Supporting
Single Jacket - Span up to 120 meters

FTTx Applications

Application

FTTx cables are used in the last portion of an all-optical network, such as fiber-to-the-home (FTTH) or fiber-to-the-business (FTTB) networks. Acts as a bridge between the distribution network and the subscriber premises.

Benefits

- Fiber Count up to 12f
- The dry water blocking materials can easily be removed without the use of cable cleaning solvents, yielding significant labor cost savings
- Easy access single tube design
- All dielectric design eliminates grounding and/or bonding
- Rapid deployment
- Single PE Jacket suitable for short-span applications

Fiber types

- G.651 multi-mode fiber
- G.652D single-mode fiber
- G.655 NZDS fiber for DWDM applications
- G.657 Bend-insensitive single-mode fiber

Full range of protections

- Water blocked

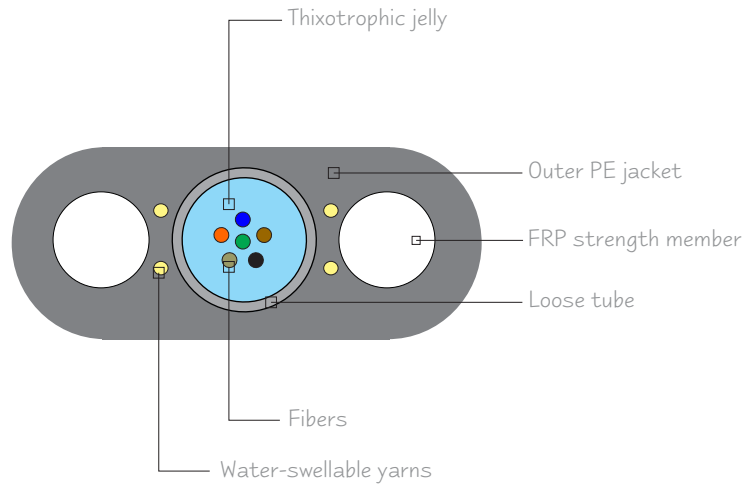
Full range of applications

- Outdoor
- Aerial

Optional protections

- N/A

Cable cut-away



Typical parameters

Number of fibers	Up to 12
Nominal outer diameter	5.5 mm (0.22 in.) X 8.5 mm (0.34 in.)
Cable weight	40 kg/km (27 lb/kft)
Max. bend radius	100 mm (3.94 in.)
Max. working tension	400 N (90 lbf)
Operating temperature range	-40 °C / 70 °C (-40 °F / 158 °F)

Specifications are subject to change without prior notice. 4SProducts cables are designed and tested per IEC specifications.



Qualifications & Approvals

Bellcore Standards
ITU Standards
TIA/EIA Standards

www.4SProducts.com

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Cable Properties

2-12 fibers FTTx cable
1 thixotropic jelly filled loose tube
Water swellable yarns
2 FRP rod strength elements
Medium density polyethylene outer jacket

Basic optical fiber	All MM and SM type fiber
Strength member	2 FRP rod, 1.6 mm (0.06 in.) O.D.
Number of fibers in each tube	2-4-6-8-10-12
Number of loose tubes	1
Loose tube diameter	3.00 mm (0.12 in.) O.D.
Tube material	PBT (Polybutylene Terephthalate)
Color of loose tube	Natural
Color of fibers	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua
Tube filling compound	Thixotropic jelly
Core filling compound	No filling compound. There are water swellable yarns instead
Outer Jacket	Black PE 1.1 ± 0.1 mm (0.04 ± 0.01 in.) nominal thickness
Approximate overall diameter	5.5 mm (0.22 in.) / 8.5 mm (0.34 in.)

Mechanical Performance	Test Procedure	Specification
Tensile strength test	EIA/TIA-455-33	1350 N (during installation) 400 N (during operation)
Crush test	EIA/TIA-455-41	220 N/cm
Temperature cycling		-40°C / 70 °C (-40 °F / 158 °F)
Bend radius (during installation)	EIA/TIA-455-37	150 mm (5.19 in.)
Bend radius (during service)	EIA/TIA-455-37	100 mm (3.94 in.)
Water penetration test	EIA/TIA-455-82	1 m length in 24 hrs with no water leak

Span Length	NESC Condition	Span (meters/feet)
Install Sag @ 1.0%	Light	120 m (394 ft)
Install Sag @ 1.0%	Medium	90 m (295 ft)
Install Sag @ 1.0%	Heavy	40 m (131 ft)



Specifications are subject to change without notice. The data given is subject to normal manufacturing tolerances.
4SProducts Loose Tube Optical Cables are tested in accordance with the requirements of Bellcore GR-20.
Performance specifications are measured per EIA Fiber Optic Test Procedures.

