

Resistance to Flame Duct Cable (LT Single Jacket Gel/Dry)

Korea Standard Association applied ISO 9001 and ISO 14001 to assure the conformance to specified requirements during production.

Cable Design

This cable design consists of loose tubes (containing optical fibers & low viscosity thixotropic non-melting filling compound) stranded around a central strength member water. The interstice in the cable core is filled with water swellable bind yarn.

The tubes are stranded with a reverse oscillation lay and are held in position with binders. Water swellable tape is then wrapped around the binders. The cable core is covered with black LSZH (Low Smoke Zero Halogen) outer sheath.

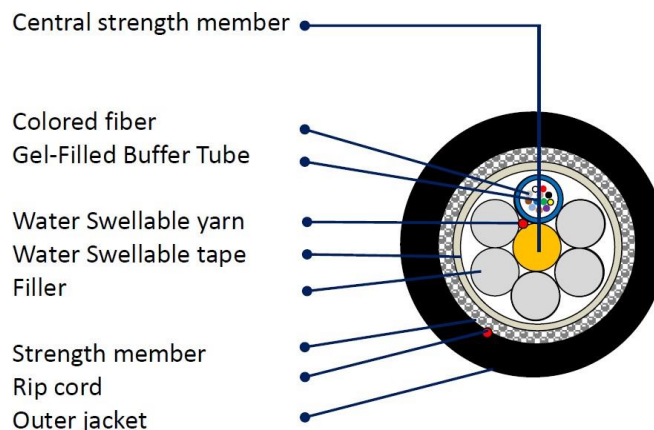
Cable Test

Mechanical test

- Tensile strength IEC-60794-1-2 E1B
- Resistance to multiple bending IEC 60794-1-2 E6
- Resistance to breaking (kink) IEC 60794-1-2 E10
- Crush resistance IEC 60794-1-2 E3
- Torsion resistance IEC 60794-1-2 E7
- Impact resistance IEC-60794-1-2 E4
- Resistance to Flame UL 1666

Environmental test

- Temperature cycling test PN-EN 60794-1-22 Method F1
- Aging PN-EN 60794-1-22 F9
- Water Penetration PN-EN 60794-1-22 Method F5
- Store temperature: -40°C to +70°C
- Installation temperature: -5°C to +55°C
- Operation temperature: -30°C to +70°C



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Color Coding of Optical Fiber in Tube

No.	1	2	3	4	5	6	7	8	9	10	11	12
12F	Blue	Orange	Green	Brown	Slate	White	Red	Black	Yellow	Violet	Pink	Aqua

Construction of Optical Fiber Cable

Item		Construction
Total fiber count		12
Number of loose tubes (ea)		1
Number of fillers (ea)		5
Loose Tube	Material	PBT (Polybutylene Terephthalate)
	Filling compound	Thixotropic compound
Filler Material		PP String
Central Strength Member		FRP Rod (Fiber Reinforced Plastic) or with PE coated
Water Blocking Material		Water swellable yarn
Water Proof		Water swellable tape
Number of Rip Cord (ea)		1
Outer Sheath		LSZH (Low Smoke Zero Halogen) – Black
Overall Cable Diameter (Nom. mm)		9.6
Cable Weight (Nom. kg/km)		89.5

Mechanical properties

Tensile strength (Max. N)	Short Term	1500
	Long Term	900
Bending Radius (Max. mm)	Loaded	192
	Un-Loaded	144
Crush		1000N/100mm
Flex		25 cycles
Twist		10 cycles
Water penetration		1 height, 3meter, 24 hours

#Footnote: This LSZH Loose Tube cable is designed for Indoor use and Outdoor duct installation. With the use of the Water Swellable Yarn and Tape, it has high water resistant capabilities should the sheath be compromised, meeting PN-EN 60794-1-22 Standards. With the use of LSZH sheath and low viscosity thixotropic, non-melting gel, this Loose Tube cable has fire retardant capabilities which meet UL 1666.

Please contact atg for more detail and delivery times