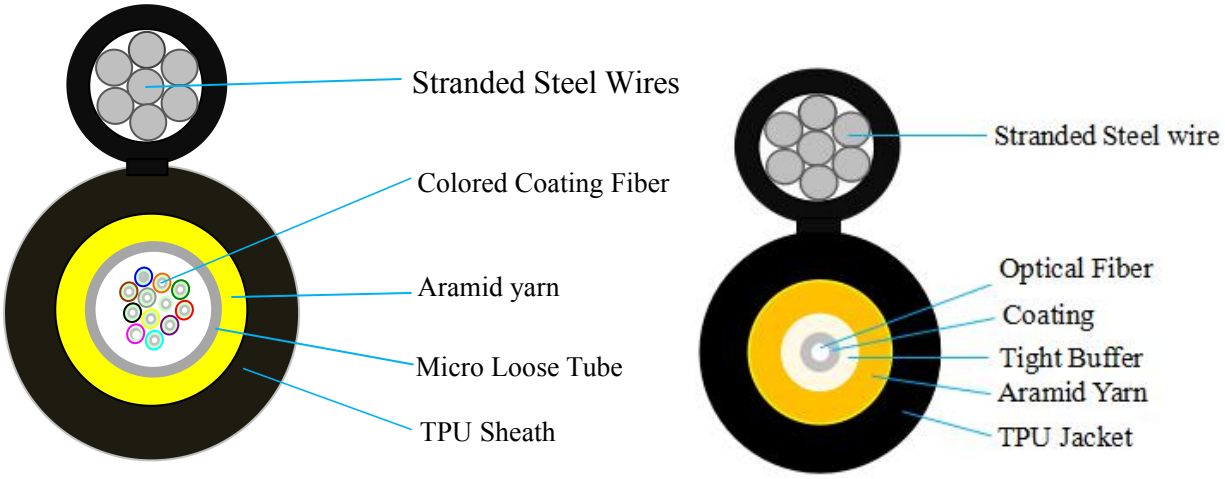
TPU Drop Fiber Optic Cable - GJYFJC8U



DESCRIPTION

The figure 8 type fiber optic cable, fiber in tight buffer or posinted in a micro loose tube, and covered with aramid yarn, then, the cable is completed with a thermoplastic urethane (TPU) outer sheath, it offer the cable excellent abrasion resistance, extreme performance at high & cold temperature, resistance to oil, mould & water.

APPLICATION

Most be used in access network, customer premises network, distribution network.
Excellent physical properities allow it can be used in special place.

STANDARD

◇ IEC/EN60794;

FEATURES

◇ Excellent temperature performance, can be used in lowest -50 ℃ cold place;
◇ Excellent abrasion resistance, 5 times compare to rubber;
◇ Excellent resistance to oil, mould and water;
◇ High tensile strength of stranded wires meet requirement of self-supporting.

1. OPTICAL FIBER

		G.652D	G657.A2	50/125μm	62.5/125μm
Attenuation (+20℃)	@850nm			≤3.0 dB/km	≤3.0 dB/km
	@1300nm			≤1.0 dB/km	≤1.0 dB/km
	@1310nm	≤0.35 dB/km	≤0.35 dB/km		
	@1550nm	≤0.21 dB/km	≤0.21dB/km		
Bandwidth (Class A)	@850nm			≥500 MHz·km	≥200 MHz·km
	@1300nm			≥1000 MHz·km	≥600 MHz·km
Numerical Aperture				0.200±0.015NA	0.275±0.015NA
Cable Cut-off Wavelength λcc		≤1260nm	≤1260nm		

Sheet 1.1

2. FIBER OPTIC ABLE

2.1. CONSTRUCTION

Fibers	Core	1	2	4	6-12	24
Tight buffer / Tube		Tight	Micro Loose Tube			
Strength Member	Material	Armid Yarn				
Outer Sheath	Material	Thermoplastic Urethane (TPU)				
	Nom. Thickness	0.8 mm				
	O.D.	3.0mm		3.3mm	3.6mm	4.1mm
Messenger	Strand steel wire	7*0.33mm				
Max Tensile Load	Short Term	1200N				
	Long Term	500N				
Crush Resistance	Short Term	≥600 N/100mm				
	Long Term	≥300 N/100mm				
Min. Bending Radius	Static	10 x Diameter				
	Dynamic	20 x Diameter				
Temperature Range	Installation	-20 ~ +60 ℃				
	Storage & Transport	-50 ~ +80 ℃				
	Operating	-50 ~ +80 ℃				

2.2 Fiber Identification

1 fiber	Tight Buffer
Color	White

2-24 fibers color coding in micro loose tube

Item	No. of fiber & Color Coding					
W/O Color Ring	1	2	3	4	5	6
	Blue	Orange	Green	Brown	Slate	White
	7	8	9	10	11	12
	Red	Nature	Yellow	Violet	Pink	Aqua
W/ Color Ring	13	14	15	16	17	18
	Blue	Orange	Green	Brown	Slate	White
	19	20	21	22	23	24
	Red	Nature	Yellow	Violet	Pink	Aqua

3. TEST REQUIREMENTS

The following table shows that the test items will be carried out according to corresponding references.

No	Item	Test standard	Method	Acceptance criteria
1	Tensile test	IEC-60794-1-E1	-Max. Tensile strength:as per table 2.1 -Sample length:50 meters -Time: 1minutes;	-Fiber strain at maximum Load: max. 0.33% -Attenuation increase≤0.05dB
2	Crush test	IEC-60794-1-E3	-Load:as per table 2.1 -Time: 1 minutes -Length: 100mm	-No splits or cracks in the outer jacket; -Attenuation increase<0.10dB,
3	Impact test	IEC-60794-1-E4	-Impact energy: 450g - Height:1 meter -Impact points: min.1 --Number of impacts: 5	-No splits or cracks in the outer jacket -Attenuation increase≤0.10dB
4	Repeated bending	IEC-60794-1-E6	-R=20×cable outer diameter -1m cable length with 150N weight,30 cycles	- No splits or cracks in the outer jacket -Attenuation increase ≤0.10dB
5	Torsion test	IEC-60794-1-E7	-1m cable length with 150N weight -±90 degrees, 10 cycles	- No splits or cracks in the outer jacket -Attenuation increase ≤0.10B
6	Bending test	IEC-60794-1-E11	-Diameter of mandrel: 20×D -Number of turns/helix:10 -Number of cycles: 5	- No splits or cracks in the outer jacket - No fiber break

7	Temperature cycling test	IEC-60794-1-F1	-Temperature step: +20℃→-40℃→+60℃→-40℃→+60℃→+20℃ -Time per each step: 12 hrs -Number of cycles: 2 cycles	-Attenuation variation for reference value(the attenuation to be measured before test at +20±3℃) ≤0.05dB,

4. PACKING AND DRUM

4.1 The cable is wound rounded on a plastic spool or wooden drum, with protection. The following information shall be marked on the outer sheath of the cable at an interval of about 1 meter.

- Cable type and number of optical fiber
- Manufacturer name or reference or according to client reference
- Month and Year of Manufacture
- Cable length

  The sequential number of the cable length shall be marked on the outer sheath of the cable at an interval of 1meter ± 1%.

4.2 Drum marking: the spool shall be marked in a label with following:

- Manufacture name and logo or reference or according to client reference
- Cable length
- Cable type and number of fibers
- Gross and net weight

-End of Specification-