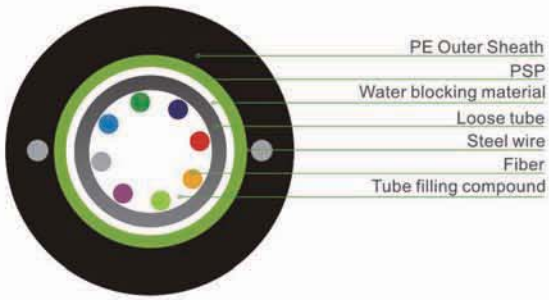
STRUCTURE CABLING
OPTICAL FIBER

Center Bundle light Armored Optical Fiber Cable (GYXTW)

D173/D174

Introduction

The fibers are placed in a loose tube made of PBT. The tube is filled with a water-resistant filling compound. The tube is wrapped with a layer of PSP longitudinally. Between the PSP and the loose tube water-blocking material is applied to keep the cable compact and watertight. Two parallel steel wires are placed at the two sides of the steel tape. The cable is completed with a PE sheath.



Fiber color code

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Gray	White	Red	Black	——	——	——	——

Cable structure and parameter

SN	Item	Unit	Value
1	No. of fibers	count	8
2	No. of fibers per tube(max)	count	8
3	No. of elements	count	1
4	Tube diameter	mm	2.0
5	Outer sheath wall thickness	mm	2.3
6	Cable diameter	mm	8.2
7	Cable weight	kg/km	68
8	Short term tension	N	1500
9	Short term crush	N/100mm	1000

Note: Mechanical sizes are nominal values.

Characteristic of Optical Cable

Mechanical characteristic and test method		
Tensile strength	conform to IEC 794-1-E1	
Crush	conform to IEC 794-1-E3	
Impact	conform to IEC 794-1-E4	
Repeated bending	conform to IEC 794-1-E6	
Torsion	conform to IEC 794-1-E7	
Flexing	conform to IEC 794-1-E8	
Cable bend	conform to IEC 794-1-E11	
Water penetration	conform to IEC 794-1-F5B	
Temperature requirement	Operation	-40˚C~+60˚C
	Installation	-10˚C~+60˚C
	Storage/transportation	-40˚C~+60˚C
Temperature cycling test	conform to IEC 794-1-F1	
Bending Radius	Unloaded	10 times of outer diameter
	loaded	20 times of outer diameter

G652D fiber information

- Mode field diameter (1310nm):9.2μm±0.4μm.
- Mode field diameter (1550nm):10.4μm±0.8μm.
- Cladding diameter:125μm±1.0μm.
- Coating diameter:245μm±7μm.
- Cut off wavelength of cabled fiber (λcc):≤1260μm.
- Attenuation at 1310nm:≤0.35dB/km.
- Attenuation at 1550nm:≤0.21dB/km.
- Bending loss at 1550nm (100 turns, 30mm radius):≤0.05dB.
- Dispersion in the range 1288 to 1339nm:≤3.5ps/(nm·km).
- Dispersion at 1550nm:≤18ps/(nm·km).
- Dispersion slope at zero dispersion wavelength:≤0.092ps/(nm2·km).

Order Information

Item	Specification	Description
D173	2-12 cores	Single Mode
D174	2-12 cores	Multimode