FiberMAX®
Conectividad en Fibra Óptica

Fibra Armada de Exteriores OMC-FIBERMAX

Steel Tape Layer Loose Tube Outdoor Cable GYTZS

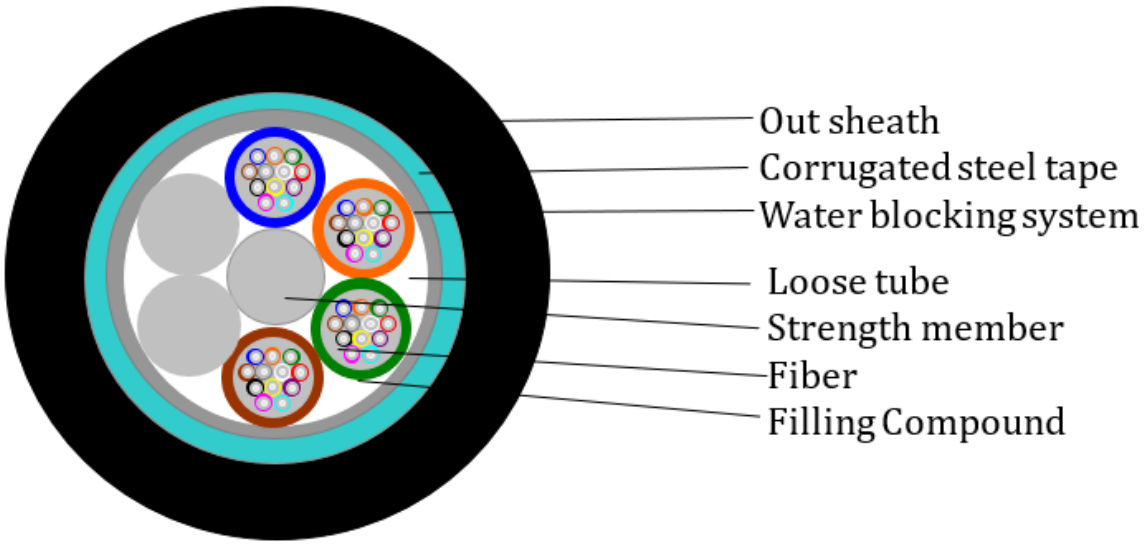
Specification

1. *Cable Description*

The fibers, singlemode or mutimode, are positioned in a loose tube made of a high modulus plastic. The tubes are filled with a water-resistant filling compound. A steel wire, sheathed with LSZH for cable with high fiber count, locates in the center of core as a metallic strength member. Tubes (and fillers) are stranded around the strength member into a compact and circular cable core. The PSP is longitudinally applied over the cable core, which is filled with the filling compound to protect it from water ingress. The cable is completed with a LSZH sheath.

2. *Cable Drawing*

Cross-sectional Drawing of Cable



Note: Structure drawing just for reference, please check the following details.

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3. Application

- Adopted to outdoor distribution
- Suitable for aerial, pipeline laying method
- Long distance and local area network communication

4. Characteristics

- Good mechanical and temperature performance
- High strength loose tube that is hydrolysis resistant
- Special tube filling compound ensure a critical protection of fiber
- Crush resistance and flexibility
- LSZH (standard IEC 60332-1) sheath protects cable from ultraviolet radiation
- Steel wire used as the central strength member
- Loose tube filling compound and 100% cable core filling
- PSP enhancing moisture-proof

5. Features:

5.1 Fiber Allocation Scheme

Fiber number	Tube number	Fiber per tube	Fiber type
24-144	1-12	12F/Tube	OS1 OS2 OM1, OM2, OM3, OM4

5.2 Cable construction details

Items		Description
Number of fibers		24-144cores
Moisture Barrier		Water blocking system
Central strength member	Material	Steel wire/FRP/FRP with PE cover
	size	1.4mm
Loose tube	material	PBT
	diameter	Φ2.2(outer/inner)
Tube-filling	material	Tube filling compound
Armoring	Material	Corrugated steel tape
Outer sheath	material	PE/HDPE
	diameter	1.70±0.2mm

6. ***Standard color of fiber and tube***

The color code of the tubes and the individual fibers, shall be in accordance with the table as below:

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

7. ***Cable Mechanical characteristic***

Items		Cable diameter	Weight
2 cores to 30 cores		8.6±0.5mm	105±5kg/km
48 cores		9.6±0.5mm	115±5kg/km
72 cores		10.5±0.5mm	125±5kg/km
96 cores		12.2±0.3mm	180±5kg/km
144 cores		14.9±0.5mm	245±5kg/km
Installation Temperature range		-15--+60℃	
Operation and transport temperature		-40-+70℃	
Min Bending Radius(mm)	Long term	10D	
	short term	20D	
Allowable Tensile Strength(N)	Long term	600	
	short term	1000	
Crush Load (N/100mm)	Long term	300	
	short term	1000	

8. ***Requirement for Order:***

1. Fiber sort: Single mode G652, G655, G657, Multimode 50/125,62.5/125, OM3, OM4
2. Fiber brand: YOFC
3. Sheath material: LSZH
4. Sheath color: Black, can be required.
5. The fiber and tube color: according to stranded color, can be required.
6. The cable Size: shall be in accordance with the table, can be required.
7. Length of cable: generally, is 2KM, can be required.
8. Another requirement: can be negotiated.

9. *Fiber characteristic*

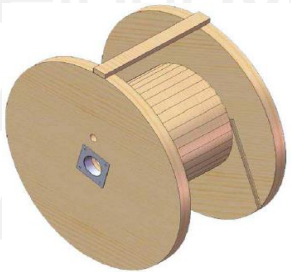
Fiber style		Unit	SM G652D	MM 50/125	MM 62.5/125
condition		nm	1310/1550	850/1300	850/1300
attenuation		dB/km	≤0.36/0.23	≤3.0/1.0	≤3.0/1.0
Dispersion	1310nm	Ps/(nm*km)	≤18	.....	.....
	1550nm	Ps/(nm*km)	≤22	.....	.....
Bandwidth	850nm	MHZ. KM	.....	≧400	≧160
	1300nm	MHZ. KM	.....	≧800	≧500
Zero dispersion wavelength		nm	≧1302, ≤1322	.....	.....
Zero dispersion slope		nm	≤0.091	.....	.....
PMD Maximum Individual Fiber			≤0.2	.....	.....
PMD Design Link Value		Ps(nm2*km)	≤0.08	.....	.....
Fiber cutoff wavelength λc		nm	≧1180 ≤1330	.....	.....
Cable cutoff wavelength λcc		nm	≤1260	.....	.....
MFD	1310nm	um	9.2±0.4	.....	.....
	1550nm	um	10.4±0.8	.....	.....
Numerical Aperture (NA)			.....	0.200±0.015	0.275±0.015
Step (mean of bidirectional measurement)		dB	≤0.05	≤0.10	≤0.10
Irregularities over fiber length and point discontinuity		dB	≤0.05	≤0.10	≤0.10
Difference backscatter coefficient		dB/km	≤0.03	≤0.08	≤0.10
Attenuation uniformity		dB/km	≤0.01	.....	.....
Core diameter		um	.....	50±1.0	62.5±2.5
Cladding diameter		um	125.0±0.1	125.0±0.1	125.0±0.1
Cladding non-circularity		%	≤1.0	≤1.0	≤1.0
Coating diameter		um	242±7	242±7	242±7
Coating/chaffinch concentrically error		um	≤12.0	≤12.0	≤12.0
Coating non circularity		%	≤6.0	≤6.0	≤6.0
Core/cladding concentricity error		um	≤0.6	≤1.5	≤1.5
Curl(radius)		um	≤4	.....	.....

10. ***Cable marking and cable reel marking***

10.1 Cable marking

The cable sheath shall be marked with white characters at intervals of one meter with following information:

1. Branded **OMC-FIBERMAX**
2. Cable type
3. Fiber type and counts
4. Year of manufacture
5. Length marking in meters



Notice: cable mark is available if requested by customer.

10.2 Cable reel:

Details given below shall be marked with a weather material on both outer sides of the reel flange:

1. Cable type and fiber counts
2. Length of cable in meters
3. Year of manufacture

Notice: shipping mark is available if requested by customer.

11. ***Packing Information***

1. Packing material: Wooden drum
2. Packing length: standard length of cable shall be 2 km. Other cable length is also available if required by customer