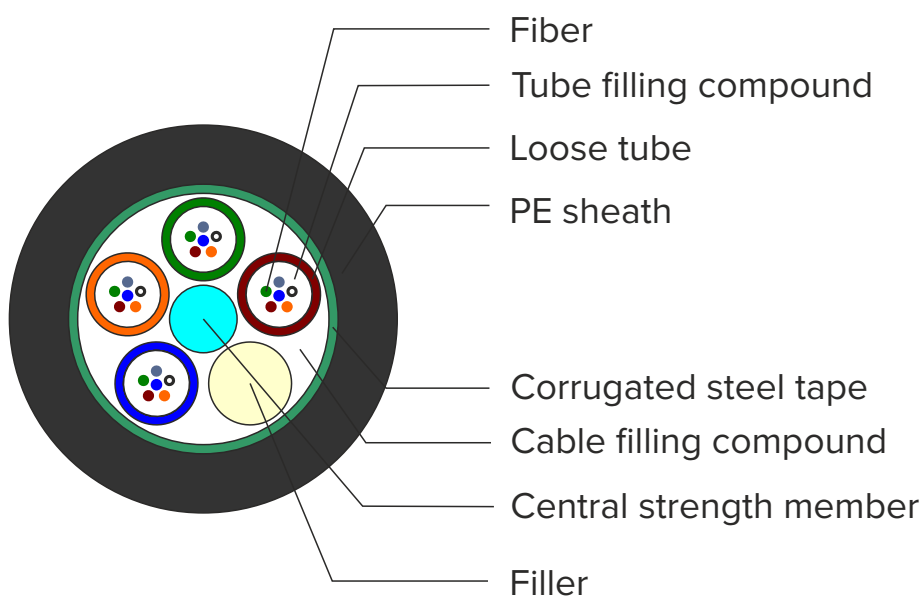


FO Outdoor MLT Armored Cable

Features



Cable attenuation

Items	Description	
SM 9/125 (G652D/G657A1/G657A2/G657B3)	Attenuation @1310nm	≤0.36dB/km
	Attenuation @1550nm	≤0.22dB/km
MM 50/125 (OM2/OM2+/OM3/OM4)	Attenuation @850nm	≤3.0dB/km
	Attenuation @1300nm	≤1.0dB/km
MM 62.5/125 (OM1)	Attenuation @850nm	≤3.3dB/km
	Attenuation @1300nm	≤1.0dB/km



FO Outdoor MLT Armored Cable

Specifications

Cable Dimensions and Constructions

Items	Descriptions						
Fiber count	6	8	12	24	48	96	144
Loose tube count	1	2	2	4	4	8	12
Fiber count per tube	6	4	6	6	12	12	12
Filler count	4	3	3	1	1	0	0
Cable diameter(mm)	9.0±0.5	9.0±0.5	9.0±0.5	9.0±0.5	10.0±0.5	12.5±0.5	15.5±0.5
Weight(Approx.)	91	91	91	90	120	172	212
Loose tube	Material		PBT				
	Tube-filling compound		Gel-filled				
	Thickness		0.30±0.05mm				
Central strength member	Material		Steel wire or Steel wire coated with PE				
Filler	Material		PP				
Outer Jacket	Material		PE				
	Color		Black				
	Min. Thickness		1.6mm				
	Diameter		See above				

FO Outdoor MLT Armored Cable

Specifications

OFC Properties - SM

S. No	Items	Description
1	Standard Compliance	OS2
2	Core Diameter	$8.2 \pm 0.2 \mu\text{m}$
3	Cladding Diameter	$125 \pm 0.7 \mu\text{m}$
4	Coating Diameter	$245 \pm 10.0 \mu\text{m}$
5	Mode Field Diameter	$9.2 \pm 0.5 @ 1310\text{nm}$ / $10.4 \pm 1.0 @ 1550 \text{ nm}$
6	Fibre curl (Radius)	4 m
7	Cable cut off wave length	$< 1260 \text{ nm}$
8	Core/Cladding Concentricity Error	$< 0.5 \mu\text{m}$
9	Cladding Non-Circularity	$< 1.0 \%$
10	PMD (Polarization Mode Dispersion)	$< 0.2 \text{ ps/km}^2$
11	Attenuation at Water Peak	$< 2 \text{ dB/km @ } 1310 \pm 3 \text{ nm}$
12	Dispersion in $\text{ps}/(\text{nm}^2.\text{km})$	< 3.5 in O band < 18 in C band
13	Strength	High Density Polyethylene with armouring for better protection against Rodent, to be easily deployed in outdoor Duct / Underground Installation.



FO Outdoor MLT Armored Cable

Specifications

OFC Properties – MM

S. No	Items	Description
1	Core Diameter	50±2.5µm
2	Cladding Diameter	125.0 ± 1 .0µm
3	Coating Diameter	245 ± 7 µm
4	Numerical Aperture	0.200±0.015
5	Dynamic stress corrosion susceptibility parameter (nd.typical)	27
6	Zero Dispersion Wavelength,	1295-1340 nm
7	Core/Cladding Concentricity Error	≤ 1.0µm
8	Cladding Non-Circularity	≤ 6.0 %
9	Zero Dispersion Slope,	≤0.105 ps/km ² (1295nm-1310nm)
10	Attenuation at Water Peak	≤0.1 dB/km @ 850 nm&1300
11	Strength	High Density Polyethylene with armouring for better protection against Rodent, to be easily deployed in outdoor Duct / Underground Installation.

FO Outdoor MLT Armored Cable

Specifications

OM3

Category	Items	Unit	Description	
			Before cabled	After cabled
Optical Characteristics	Attenuation at 850 nm	dB/km	≤ 2.3	≤3.5
	Attenuation at 1300 nm	dB/km	≤ 0.6	≤ 1.5
	Zero dispersion wavelength	nm	1295~1340	
	Zero dispersion slope at 1295nm~1310nm	/	≤ 0.105	
	Zero dispersion slope at 1300nm~1320nm	/	≤ 0.000375 (1590·l o)	
	Group Index of Refraction (Typical) at 850 nm	/	1.482	
	Group Index of Refraction (Typical) at 1300 nm	/	1.477	
	Numerical Aperture	/	0.200 ± 0.015 NA	
	Overfilled Bandwidth at 850 nm	MHz·km	≥ 1500	
	Overfilled Bandwidth at 1300 nm	MHz·km	≥ 500	
	Effective Modal Bandwidth at 850 nm	MHz·km	≥ 2000	
	Macro-bend loss(100turns, 30mm radius) at 850nm	dB	≤ 0.5	
	Macro-bend loss(100turns, 30mm radius) at 1300nm	dB	≤ 0.5	
Geometrical Characteristics	Core diameter	μm	50 ± 2.5	
	Cladding diameter	μm	125.0 ± 1.0	
	Core non-circularity	%	≤ 5.0	
	Cladding non-circularity	%	≤ 1.0	
	Coating diameter	μm	245 ± 7	
	Coating/cladding concentricity error	μm	≤ 10.0	
	Coating non-circularity	%	≤ 6.0	
	Core/cladding concentricity error	μm	≤ 1.0	



FO Outdoor MLT Armored Cable

Specifications

OM4

Category	Items	Unit	Description	
			Before cabled	After cabled
Optical Characteristics	Attenuation at 850 nm	dB/km	≤ 2.3	≤ 3.5
	Attenuation at 1300 nm	dB/km	≤ 0.6	≤ 1.5
	Zero dispersion wavelength	nm	1295~1340	
	Zero dispersion slope at 1295nm~1310nm	/	≤ 0.105	
	Zero dispersion slope at 1300nm~1320nm	/	≤ 0.000375 (1590·l o)	
	Group Index of Refraction (Typical) at 850 nm	/	1.482	
	Group Index of Refraction (Typical) at 1300 nm	/	1.477	
	Numerical Aperture	/	0.200 ± 0.015 NA	
	Overfilled Bandwidth at 850 nm	MHz·km	≥ 3500	
	Overfilled Bandwidth at 1300 nm	MHz·km	≥ 500	
	Effective Modal Bandwidth at 850 nm	MHz·km	≥ 4700	
	Macro-bend loss(100turns, 30mm radius) at 850nm	dB	≤ 0.5	
	Macro-bend loss(100turns, 30mm radius) at 1300nm	dB	≤ 0.5	
Geometrical Characteristics	Core diameter	μm	50 ± 2.5	
	Cladding diameter	μm	125.0 ± 1.0	
	Core non-circularity	%	≤ 5.0	
	Cladding non-circularity	%	≤ 1.0	
	Coating diameter	μm	245 ± 7	
	Coating/cladding concentricity error	μm	≤ 10.0	
	Coating non-circularity	%	≤ 6.0	
	Core/cladding concentricity error	μm	≤ 1.0	



Outdoor MLT Steel Armored Cable

Specifications

Reference Standard

IEC60794-2-20/21
IEC11801
ITU-T G.652D; G.657A1; G.657A2; G.657B3
EIA/TIA
RoHS Compliant

Mechanical and Environmental Characteristics

Items	Descriptions	
Tensile Strength (IEC 60794-1-2-E1)	short-term	1500N(8~48F) or 3000N(96/144F)
	long-term	600N(8~48F) or 1000N(96/144F)
Crush Resistance (IEC 60794-1-2-E3)	short-term	1000N/100mm
	long-term	300N/100mm
Temperature Range (IEC 60794-1-2 F1)	Storage/Operation	-40°C ~ +70°C
	Installation	+10°C ~ +60°C
Bending Radius	Static	10D
	Dynamic	20D
Water Penetration	IEC 60794-1-2 F5	
Flammability	IEC 60332-1	
RoHS (2011/65/EU)	Compliant	
Jacket	HDPE or LSZH	

Packing

Wooden Drums Protection

Delivery Length

Standard delivery length is 2 km/drum or per customer's requirements.

Outdoor MLT Steel Armored Cable

Ordering Information

Number	Description
GFS2CALTMSAPE006	Genius Fiber Optic cable 6 core Single Mode Multitube Armoued HDPE
GFS2CALTMSAPE012	Genius Fiber Optic cable 12 core Single Mode Multitube Armoued HDPE
GFS2CALTMSAPE024	Genius Fiber Optic cable 24 core Single Mode Multitube Armoued HDPE
GFS2CALTMSALS006	Genius Fiber Optic cable 6 core Single Mode Multitube Armoued LSZH
GFS2CALTMSALS012	Genius Fiber Optic cable 12 core Single Mode Multitube Armoued LSZH
GFS2CALTMSALS024	Genius Fiber Optic cable 24 core Single Mode Multitube Armoued LSZH
GFM3CALTMSAPE006	Genius Fiber Optic cable 6 core OM3 Multitube Armoued HDPE
GFM3CALTMSAPE012	Genius Fiber Optic cable 12 core OM3 Multitube Armoued HDPE
GFM3CALTMSAPE024	Genius Fiber Optic cable 24 core OM3 Multitube Armoued HDPE
GFM3CALTMSALS006	Genius Fiber Optic cable 6 core OM3 Multitube Armoued LSZH
GFM3CALTMSALS012	Genius Fiber Optic cable 12 core OM3 Multitube Armoued LSZH
GFM3CALTMSALS024	Genius Fiber Optic cable 24 core OM3 Multitube Armoued LSZH
GFM4CALTMSAPE006	Genius Fiber Optic cable 6 core OM4 Multitube Armoued HDPE
GFM4CALTMSAPE012	Genius Fiber Optic cable 12 core OM4 Multitube Armoued HDPE
GFM4CALTMSAPE024	Genius Fiber Optic cable 24 core OM4 Multitube Armoued HDPE
GFM4CALTMSALS006	Genius Fiber Optic cable 6 core OM4 Multitube Armoued LSZH
GFM4CALTMSALS012	Genius Fiber Optic cable 12 core OM4 Multitube Armoued LSZH
GFM4CALTMSALS024	Genius Fiber Optic cable 24 core OM4 Multitube Armoued LSZH