

FIBER OPTIC CABLE PRODUCT

SINGLE TUBE, INDOOR/OUTDOOR CABLE SM/MM



PRODUCT DESCRIPTION

- Low attenuation, dispersion and special control of excess fiber length ensure excellent mechanical and envelopment properties.
- Filling compound and water block material validly prevent water penetration.

APPLICATION

- Optical transmission cables for transmission equipment, data processing equipment also suitable for general cabling.
- Laying method : Conduit, aerial, direct buried, shelf
- Temperature range -40 °C - +70 °C

STANDARD

- ATM, FDDI, FTTX, Fiber Channel, CATV, Communication
- ISO/IEC 11801:2007, ISO/IEC 11801:2011 (Ed.2.2)
- ANSI/TIA/EIA-568-B.3, ANSI/TIA-568-C.3, ANSI/TIA-568.3-D, ANSI/ICEA 640
- Telcordia (Bellcore) GR-20 CORE, GR-409-CORE
- ANSI/ICEA 596, ICEA 696, IEC 61034-2, IEC 60754-2, IEC 60793, IEC 60794-1-2
- ITU G.652D, ITU-TG 657A2
- TIA/EIA-598-C (Rev. TIA/EIA-598-A), EIA-359-A.
- IEEE 802.3z, IEEE 802.3ae, IEEE 802.3 (LAN, Ethernet Fast Ethernet, Gigabit Ethernet and 10 Gigabit Ethernet 40-100 Gbps)
- RoHS compliant
- TISI-2165
- Made in Thailand : MiT



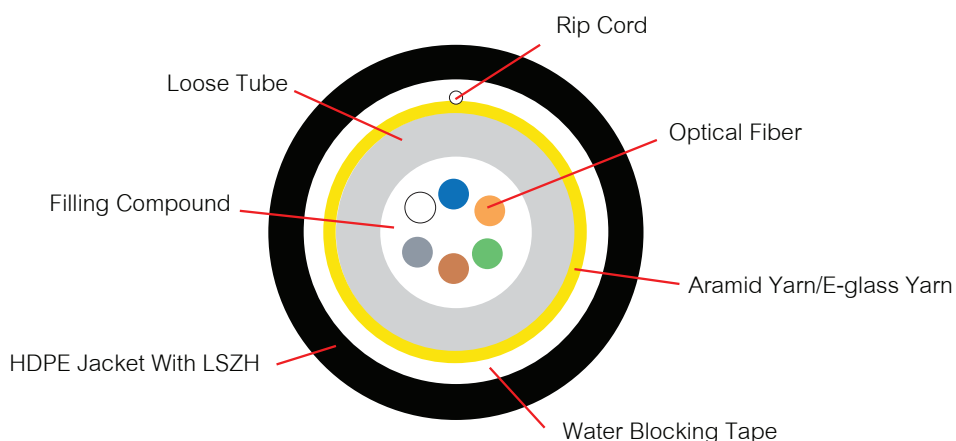
Characteristic of Optical Cable

Min. bending radius

- Static: 10 x cable diameter
- Dynamic: 20 x cable diameter

Application temperature range

- Operation: - 20°C ~ +70°C
- Installation: - 20°C ~ +70°C



CABLE STRUCTURE AND PARAMETER

Item	Contents	Unit	Value
Optical Fiber	model number	/	/
	number	/	8
	Color	/	Blue, orange, green, brown, gray, white, red, black
Strength member	material	/	Water blocking aramid
Loose tube	Diameter	mm	3.0 ± 0.2
	Material	/	PBT
	Color	/	Nature
Outer jacket	Diameter	mm	7.0 ± 0.4
	Material	/	PE
	Color	/	black
Tensile performance	Short term	N	2000
	Long term	N	1000
Crush	Short term	N/100mm	1000
	Long term	N/100mm	500
Cable attenuation		dB/km	≤ 0.4 at 1310nm, ≤ 0.3 at 1550nm ≤ 3.5 at 850nm, ≤ 1.5 at 1300nm
Cable weight (Approx.)		Kg/km	37.7

MAIN MECHANICAL & ENVIRONMENTAL PERFORMANCE TEST

Item	Test Method	Acceptance Condition
Tensile Strength IEC 60794-1-2-E1	- Load : Short term tension	- Fiber strain 0.6%
	- Length of cable : 50m	- Loss change ≤ 0.2 dB @ 1550nm after test.
	- Load time : 1min	- No fiber break and no sheath damage.
Crush Test IEC 60794-1-2-E3	- Load : Short term crush	- Loss change ≤ 0.2 dB @ 1550nm after test.
	- Load time : 1 min	- No fiber break and no sheath damage.
Impact Test IEC 60794-1-2-E4	- Radius : 12.5 mm	- Loss change ≤ 0.2 dB @ 1550nm after test.
	- Points of impact : 3	
	- Times of per point : 1	
	- Impact energy : 1J	
Torsion IEC 60794-1-2-E7	- Length : 1 M	- Loss change ≤ 0.2 dB @ 1550nm during test.
	- Twist angle : $\pm 180^\circ$	
	- No. of cycles : 10	
Cable bend IEC 60794-1-2-E11	- Load : 50 N	- No fiber break and no sheath damage.
	- Radius : 60 mm	
	- Number of turns : 5	
Temperature Cycling IEC 60794-1-2-F1	- Number of cycles : 3	- Loss change ≤ 0.2 dB @ 1550nm
	- Temperature : -20°C ~+ 70°C	
	- Time of each step : 8h	
	- Number of cycles : 2	
Other parameters	- Length of cable : 1000m	- No fiber break and no sheath damage.
	According to IEC 60794-1	

OPTICAL FIBER

Item		Unit	Specification
			/
Mode field diameter	1310nm	μm	9.2 ± 0.4
	1550nm	μm	10.4 ± 0.5
Cladding diameter		μm	125.0 ± 0.7
Cladding non-circularity		%	≤1.0
Core concentricity error		μm	≤0.6
Coating diameter		μm	242 ± 7
Coating/cladding concentricity error		μm	≤12
Cable cut-off wavelength		nm	≤1260
Attenuation	1310nm	dB/km	≤0.35
	1550nm	dB/km	≤0.21

fiber information

Core diameter:	50 μm2.5 μm
Cladding diameter:	125 μm1.0 μm
Coating diameter:	242 μm5 μm
Attenuation at 850nm:	≤3.0dB/km
Attenuation at 1300nm:	≤1.0dB/km
Bending loss at 850nm (100 turns, 37.5mm radius):	≤0.5dB
Bandwidth at 850nm:	≥700MHz·km
Bandwidth at 1300nm:	≥500MHz·km

ORDER INFORMATION F-SL-OD-9-HD-24

