

FIBER OPTIC CABLE PRODUCT

ARSS FIBER OPTIC SINGLE JACKET CABLE.



PRODUCT DESCRIPTION

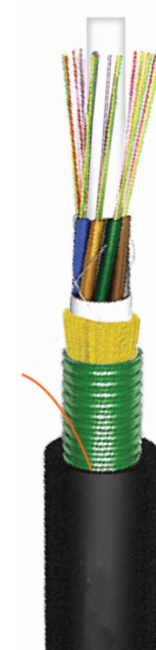
- Provide additional mechanical protection
- low friction installation
- Excellent protection from environmental hazards
- Code colour fiber and loose tube
- The cable shall be used for duct or aerial installed

APPLICATION

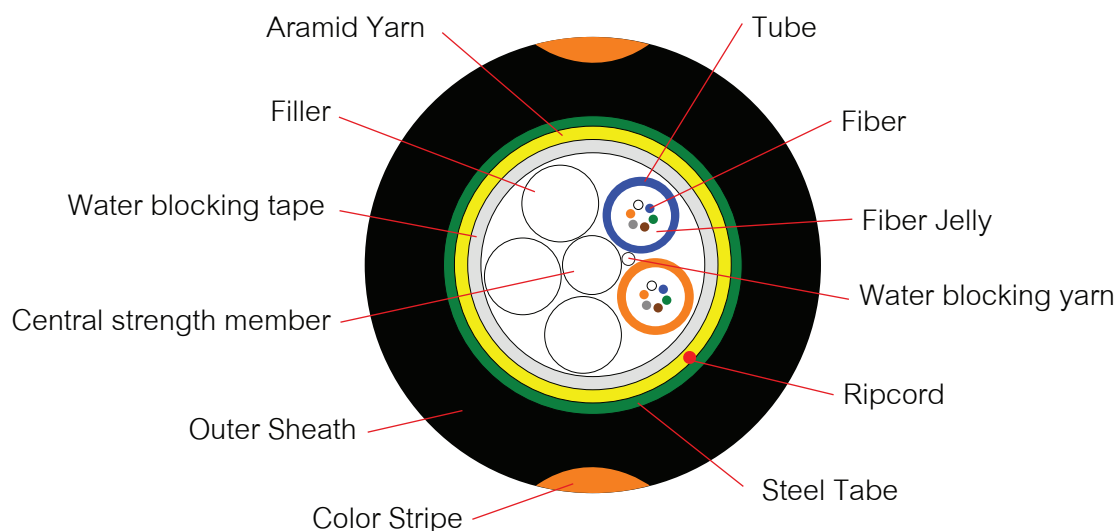
Environment with high electric field strength in the Power communication system and the area where frequent thunder happens.

STANDARD

- TIA/EIA-598-A ,TIA/EIA-598-C, ANSI/TIA/EIA-568-B.3, ANSI/ TIA-568-C.3, ANSI/TIA/EIA-568-D.3, ANSI/ICEA640
- IEEE802.3 (LAN, Ethernet Fast Ethernet, Gigabit Ethernet and 10 Gigabit Ethernet) , 10 GEthernet, ATM, FDDI, FTTX,Fiber Channel,CATV, Communication
- ISO/IEC 11801:2011(Ed.2.2)
- Telcordia (Bellcore) GR-20CORE
- IEC 60793-2B1.3, IEC 60794-1-2, ICEA696, IEC61034-2, IEC60754-2, IEC 60793, IEC 596
- TIS 2166-2548,
- ITU-T G.652D, ITU-TG 657A2
- RoHS compliant



F-ML-ARSS9-XX-SJ



TISI-2166

FOCOMM (THAILAND) CO., LTD

12 Soi Sukhaphiban 5 Soi 5 Yaek 3, Tha Raeng Subdistrict, Bang Khen District Bangkok 10220

Email : info@focomm-cabling.com www.focomm-cabling.com



CONSTRUCTION

Number of fibers		6-24	36-60	72	96
Loose Tube	Material	PBT (Polybutylene Terephthalate) with color coding			
	Filling Compound	Thixotropic Jelly Compound			
	Fiber per Tube	6	12	12	12
	Number	1-4	3-5	6	8
Filler Rod	Material	Plastic rod, natural color			
	Number	4-1	2-0	0	0
	Diameter	2.2 ± 0.1 mm.			
Stranding	Method	Reverse oscillating lay (ROL) technique (SZ Direction)			
Central Strength Member	Material	FRP (Fiberglass Reinforce with Plastic)			
	Color	Natural			
Water Blocking Yarn	Material	Suitable Water Swellable Materials (Dry-Core Technology)			
Binder & Wrapping	Material	Polyester yarns			
Water Blocking Tape	Thickness	0.3 ± 0.05 mm.			
Ripcord	Material	Plastic thread			
	Number	2			
Additional Strength Member	Material	Water blocking E-glass yarn (aramid yarn is available on request)			
Armored	Material	Corrugated chrome steel tape coated with polymer			
	Thickness	Steel & Polymer coating : 0.25 mm.			
Outer Sheath	Material	UV-Proof, Black HDPE (non Rodent Repellent/Rodent Repellent)			
	Thickness(Approx.)	1.6 mm.			
Cable Diameter (Approx.)		10.3 ± 1 mm.	10.7 ± 1 mm.	11.2 ± 1 mm.	12.4 ± 1 mm.
Cable Weight (Approx.)		90 ± 10kg./km.	100 ± 10kg./km.	110 ± 10kg./km.	135 ± 10kg./km.
Temperature Range	Operation Temperature	-40°C to +70°C			
	Installation Temperature	-40°C to +70°C			
	Storage/Shipping Temperature	-40°C to +75°C			

FIBER COLOR

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	Rose	Aqua

OPTICAL FIBER

Items		Specifications
Fiber Type		9/125 μm(OS2)
Max. / Typ. Attenuation	1310 nm	≤ 0.35 / ≤ 0.33 dB/km
	1383 nm	≤ 0.35 / ≤ 0.31 dB/km
	1550 nm	≤ 0.21 / ≤ 0.19 dB/km
	1625 nm	≤ 0.23 / ≤ 0.20 dB/km
Core	Mode Field Diameter	9.2 ± 0.4 μm@ 1310 nm
		10.4 ± 0.5 μm@ 1550 nm
Cladding Diameter		125 ± 0.7μm
Coating Diameter, Primary		240 ± 5 μm
Coating Diameter, Secondary		250 ± 5 μm
Cladding Non-circularity		≤ 0.7 %
Core/Cladding Concentricity error		≤ 0.5 μm
Coating/Cladding Concentricity erro		≤ 12 μm
Zero Dispersion Wavelength		1300 ~ 1324 nm
Zero Dispersion Slope		≤ 0.092 ps/(nm2.km)
Cut-off Wavelength	λ _o (Fiber)	1150 ~ 1330 nm
	λ _∞ (Cable)	≤1260nm
Proof Test Stress		100 Kpsi
Chromatic Dispersion	λ ; 1285~1340nm	≤ 3.5 ps/nm.km
	λ = 1550nm	≤ 18 ps/nm.km
	λ = 1625nm	≤ 22 ps/nm.km
Polarization mode dispersion (PMD)		≤ 0.20 ps/√km
Fiber Curl		≥ 4M
Numerical Aperture		0.130 ± 0.010
Group refractive index		1.4676
		1.4682

MECHANICAL SPECIFICATION

Item		Specification
Maximum Span Length	Sag 0.5%	40 m.
	Sag 1.0%	80 m.
Maximum Wind Velocity		126 km./hr.
Max. Tensile load	Installation	3,600 N. for 6-96 Cores
	Operation	2,500 N. for 6-96 Cores
Maximum Crush resistance		3,400 N./10 cm.
Minimum bending Radius	Installation	20 x Diameter of Cable
	Operation	10 x Diameter of Cable

PACKING AND DRUM

The cable is rounded on a non-returnable wooden drum. Both ends of cable are securely fastened to drum and sealed with a shrinkable cap to prevent ingress of moisture. 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
- 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%

TEST REQUIREMENTS

Item	Method	Acceptance criteria
Tensile Loading	IEC 60794-1-2-E1	Attenuation change < 0.1 dB
	Load :2,500 N	Fiber strain ≤0.33%
	Hold time : 1hour	No fiber break and no sheath damage
Impact	IEC 60794-1-2-E4	Attenuation change <0.1 dB
	Impact energy :5N.m	No fiber break and no cable damage
	Radius of hammer head:12.5±0.1mm	
	Point of impact : 3	
Crush	No. of impact: 1 time each point	
	IEC 60794-1-2-E3	Attenuation change <0.1 dB
	Load : 2,200N/100mm	No fiber break and no cable damage
	Loading time: 10 minute	
Repeat Bending	IEC 60794-1-2-E6	Attenuation change <0.1 dB
	Flexing rate: ≤ 2 sec/cycle	No fiber break and no cable damage
	No. of cycles : 25	
	Mandrel diameter: 20×Dia. of cable.	
Water Penetration	Load : 50 N	
	IEC 60794-1-2-F5B	No water leakage at end of cable
	Head of water : 1 m	
	Test time : 1 hour	
Twist	Sample length: 3 m	
	IEC 60794-1-2-E7	Attenuation change <0.1 dB
	Length : 1 m	No fiber break and no cable damage
	Twist angle : ±90°	
Temperature Cycling	No. of cycles : 5 cycles	
	IEC 60794-1-2-F1	Attenuation change <0.1 dB/km
	No. of cycles : 1	No fiber break and no cable damage
	Temperature: -10 to +70°C	
	Soak time (4km/drum): 12 hours	

ORDER INFOMATION

PRODUCT	PART NUMBER
Outdoor Cable, Multi Loose Tube, ARSS, Single Jacket, SM 9/125 06 Core	F-ML-ARSS9-06-SJ
Outdoor Cable, Multi Loose Tube, ARSS, Single Jacket, SM 9/125 12 Core	F-ML-ARSS9-12-SJ
Outdoor Cable, Multi Loose Tube, ARSS, Single Jacket, SM 9/125 24 Core	F-ML-ARSS9-24-SJ
Outdoor Cable, Multi Loose Tube, ARSS, Single Jacket, SM 9/125 48 Core	F-ML-ARSS9-48-SJ
Outdoor Cable, Multi Loose Tube, ARSS, Single Jacket, SM 9/125 96 Core	F-ML-ARSS9-96-SJ
Outdoor Cable, Multi Loose Tube, ARSS, Single Jacket, Rodent Repellent SM 9/125 12 Core	F-MLR-ARSS9-12-SJ
Outdoor Cable, Multi Loose Tube, ARSS, Single Jacket, Rodent Repellent SM 9/125 24 Core	F-MLR-ARSS9-24-SJ
Outdoor Cable, Multi Loose Tube, ARSS, Single Jacket, Rodent Repellent SM 9/125 48 Core	F-MLR-ARSS9-48-SJ
Outdoor Cable, Multi Loose Tube, ARSS, Single Jacket, Rodent Repellent SM 9/125 96 Core	F-MLR-ARSS9-96-SJ