

FIBER OPTIC CABLE PRODUCT

ADSS FIBER OPTIC DOUBLE JACKET



PRODUCT DESCRIPTION

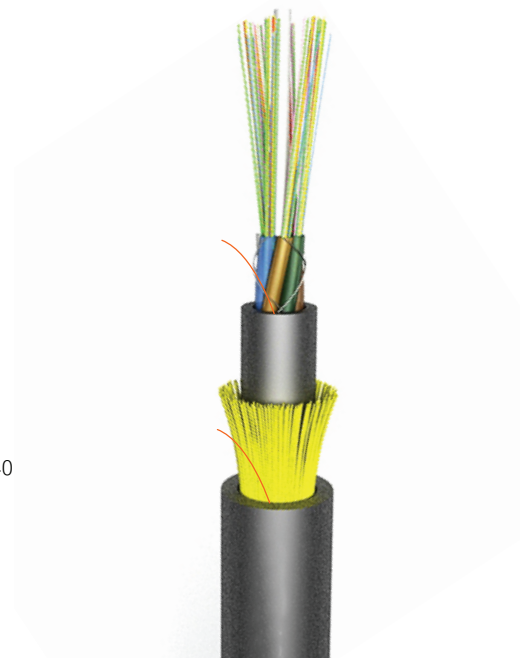
- The cable shall be used for aerial or duct installed.
- Provide additional mechanical protection.
- low friction installation.
- Excellent protection from environmental hazards.
- Single Mode.
- Color code fiber and Loose tube in standard

APPLICATION

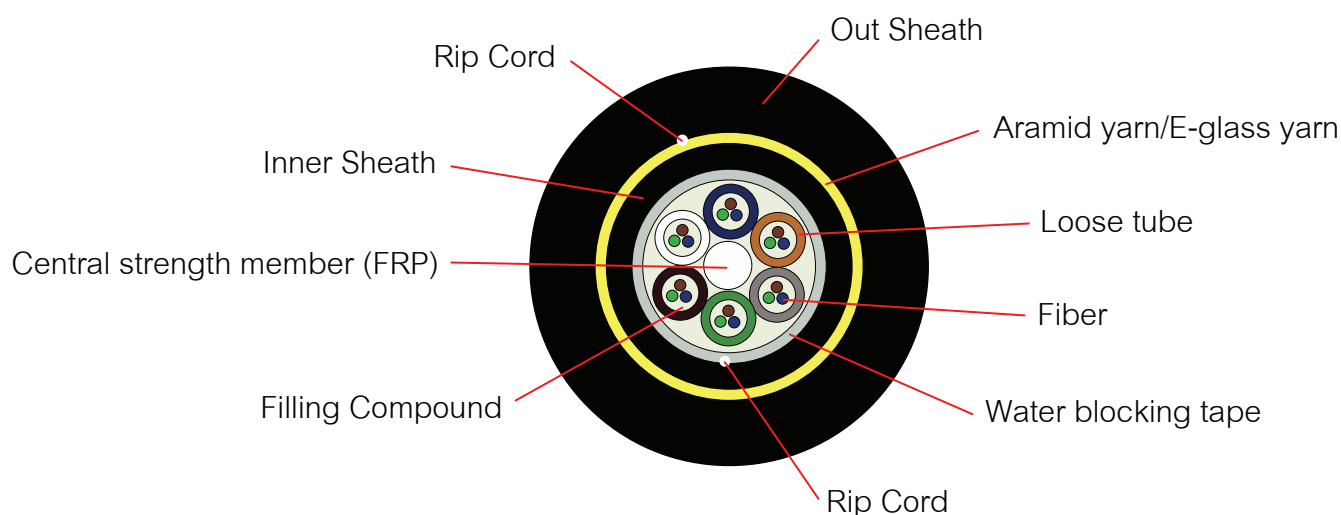
Environment with high electric field strength in the Power communication system and the area where frequent thunder happens.

STANDARD

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



F-ML-ADSS9-XX-DJ



TISI-2166

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CONSTRUCTION CABLE

Cable type		ADSS
Element	-	6
Central strength member	Material	FRP (1.8mm)
Loose tube	Material	PBT
	Diameter	2.0mm
	-	6 fiber per tube, Thixotropic Jelly compound.
Protective tape	Material	Water-blocking tape
Strength member	Material	Aramid yarns/E-glass yarn
Outer Sheath	Material	Black HDPE (non Rodent Repellent/Rodent Repellent)
	Thickness	1.8mm
Inner Sheath	Material	Black PE
	Material	Water blocking tape
Overall diameter	Diameter	13.4mm-16.4mm
Weight	-	Approx. 180kg/km
Tensile Load	Short term	5000N
	Long term	4000N
Bending radius	Short term	20H
	Long term	10H
Span		80m
Operating temperature	Storage	-40-+75 oC
	Installing	-40-+80 oC
Pole mount		40-80 m and wind force 126 Km/hr
Span Length		100-120 m

OPTICAL FIBER CHARACTERISTICS

CATEGORY	DESCRIPTION	SPECIFICATIONS
Optical Specifications		G.652D
Attenuation	@1310nm	$\leq 0.35\text{dB/km}$
	@1383nm	$\leq 0.35\text{dB/km}$
	@1550nm	$\leq 0.21\text{dB/km}$
	@1625nm	$\leq 0.23\text{dB/km}$
Attenuation discontinuity		$\leq 0.05\text{dB}$
Attenuation vs. Wavelength	1285 - 1330 @1310nm	$\leq 0.05\text{dB/km}$
	1525 - 1575 @1550nm	$\leq 0.05\text{dB/km}$
Zero dispersion wavelength		1300-1324nm
Zero dispersion slope		$\leq 0.092\text{ps}/(\text{nm}^2.\text{km})$
Dispersion	@1310nm	$\leq 3.5\text{ ps/nm.km}$
	@1550nm	$\leq 18\text{ ps/nm.km}$
Polarization mode dispersion(PMD)		$\leq 0.1\text{ ps/km}$
Cable cutoff wavelength(λ_{cc})		1260 nm
Effective group index of reaction	@1310nm	1.4675
	@1550nm	1.4681
Geometric Specifications		
Mode field diameter	@1310nm	$9.2\pm 0.4\mu\text{m}$
	@1550nm	$10.4\pm 0.5\mu\text{m}$
Cladding diameter		$125\pm 1\mu\text{m}$
Cladding non -circularity		$\leq 1.0\%$
Coating diameter		$145\pm 10\mu\text{m}$
Coating/Cladding concentricity error		$\leq 12\mu\text{m}$
Core/Cladding concentricity error		$\leq 1\mu\text{m}$
Mechanical Specifications		
Proof test level		$\geq 1.0\%$
Fiber curl radius		$\geq 4.0\text{m}$
Peak coating strip force		1.3-8.9N

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 \pm 1%

TEST REQUIREMENTS

Item	Method	Acceptance criteria
Tensile test	- Max. tensile strength:3000N	-Fiber strain at maximum
IEC 60794-1-2-E1A	- Sample length:100 meters	-Load max. 0.33%
TIA/EIA-455-33A	- Times: 1 minute	-Attenuation increase \leq 0.1dB
Crush test	- Load:2200N	-No splits or cracks in the outer jacket
IEC 60794-1-2-E3	- Time: 1 minutes	-Attenuation increase<0.10dB
TIA/EIA-455-41A	- Length: 100mm	
Impact test	- Impact energy: 450g	- No splits or cracks in the outer jacket
IEC 60794-1-2-E4	- Height:1 meter	-Attenuation increase \leq 0.10B(after the test)
TIA/EIA-455-25B	- Impact points: min.1	
	- Number of impacts: 5	
Torsion test	- 1m cable length with 150N weight	- No splits or cracks in the outer jacket
IEC 60794-1-2-E7	- \pm 180°,10 cycles	-Attenuation increase \leq 0.10B(after the test)
TIA/EIA-455-85A		
Repeated bending	- Radius=20 \times cable outer diameter	- No splits or cracks in the outer jacket
Cable bending Test	- 1m cable length with 150N weight,30 cycles	-Attenuation increase \leq 0.10dB(after the test)
IEC 60794-1-2-E6,		
TIA/EIA-455-104A		
IEC 60794-1-2-E11B		
Temperature cycling test	- Temperature step: +20 °C -40 °C+60 °C-40 °C	-Attenuation variation for reference
IEC 60794-1-2-F1	+60 °C+20 °C	value(the attenuation to be measured before
TIA/EIA-455-3A	- Time per each step: 12 hrs.	test at +20 \pm 3) \leq 0.10dB/km
	- Number of cycles: 2 cycles	
Water penetration test	- Water height: 1m	-No water leakage at the end of the sample
IEC 60794-1-2-F5	- Sample length:3m	
TIA/EIA-455-82B	- Duration of test: 24hrs	
Drip test	- Five 0.3m samples suspended vertically in a climate	-No filling compound shall drip from tubes after 24 hrs.
IEC 60794-1-2-E14	chamber, raised temperature to +70°C	

ORDER INFORMATION

PRODUCT	PART NUMBER
Outdoor Cable, Multi Loose Tube, ADSS, Double Jacket, SM 9/125 06Core	F-ML-ADSS9-06-DJ
Outdoor Cable, Multi Loose Tube, ADSS, Double Jacket, SM 9/125 12Core	F-ML-ADSS9-12-DJ
Outdoor Cable, Multi Loose Tube, ADSS, Double Jacket, SM 9/125 24Core	F-ML-ADSS9-24-DJ
Outdoor Cable, Multi Loose Tube, ADSS, Double Jacket, SM 9/125 48Core	F-ML-ADSS9-48-DJ
Outdoor Cable, Multi Loose Tube, ADSS, Double Jacket, SM 9/125 96Core	F-ML-ADSS9-96-DJ
Outdoor Cable, Multi Loose Tube, ADSS, Double Jacket, SM 9/125 120Core	F-ML-ADSS9-120-DJ
Outdoor Cable, Multi Loose Tube, ADSS, Double Jacket, Rodent Repellent SM 9/125 12Core	F-MLR-ADSS9-12-DJ
Outdoor Cable, Multi Loose Tube, ADSS, Double Jacket, Rodent Repellent SM 9/125 24Core	F-MLR-ADSS9-24-DJ
Outdoor Cable, Multi Loose Tube, ADSS, Double Jacket, Rodent Repellent SM 9/125 48Core	F-MLR-ADSS9-48-DJ
Outdoor Cable, Multi Loose Tube, ADSS, Double Jacket, Rodent Repellent SM 9/125 96Core	F-MLR-ADSS9-96-DJ
Outdoor Cable, Multi Loose Tube, ADSS, Double Jacket, Rodent Repellent SM 9/125 120Core	F-MLR-ADSS9-120-DJ