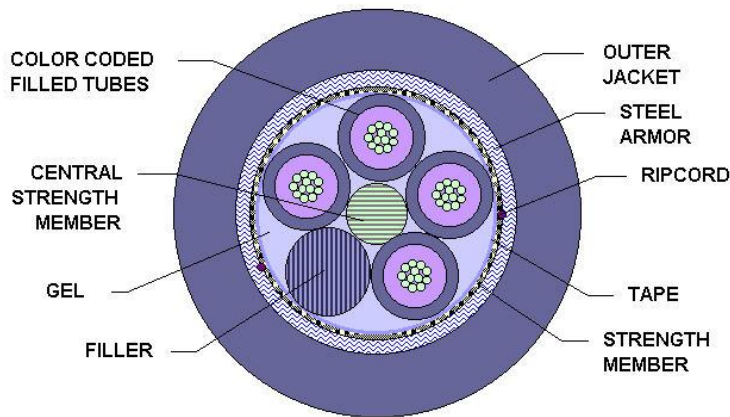




OSP LOOSE TUBE LITE ARMOUR FIBER OPTIC CABLE PRODUCT SPECIFICATION 48XXX12AEBSXNN

This document establishes the specifications for an outdoor, direct burial, armored multimode fiber optic cable, in a flooded loose buffer tube design. It contains test values for all-important mechanical, optical, and environmental parameters and as such, is the basis for all-incoming inspection and acceptance.

1.0 CABLE CROSS SECTION



2.0 OVERALL CABLE CONSTRUCTION

2.1 Buffer tube

High Modulus Polymeric material

Dimension: 2.8 mm. nominal.

Tube and fiber color code per EIA/TIA-598 or as specified by customer.

Filling compound: A non-toxic and dermatological safe antioxidant hydrocarbon based gel.

2.2 Dielectric Central strength member.

Epoxy Glass Rod with an up-coat of polymer (if necessary per construction).

2.3 Cable Core

The cable elements are stranded around the CSM, using reverse oscillation.

Moisture Resistance: The interstices are flooded with a homogeneous, non-hygroscopic, non-conductive and non-toxic, dermal safe polyolefin based compound to prevent water ingress and migration of moisture through the cable core.

Then a non-wicking and non-hygroscopic polypropylene tape is applied longitudinally with a nominal 25% overlap.

Binder yarns are applied over the core tape.

2.4 Cable strength

Circumferential strength members are placed over the cable core and under the armor tape.



2.5 Steel Armor tape

Corrugated flexible steel with plastic coating for bonding to sheath. The armor of each length of cable shall be electrically continuous with no more than one splice allowed per kilometer of cable. The breaking strength of any section of an armor tape containing a factory splice joint, shall not be less than 80% of the breaking strength of an adjacent section of the armor of equal length without a joint.

A ripcord is applied under the armor tape.

2.6 Outer Sheath

UV Resistant Black Polyethylene

2.7 Cable Markings

Indent printed: CCT GROUP48, FIBER OPTIC CABLE, # of fibers-50/125, MM/YY (month and year of manufacture), sequentially meter marked. Special print as required by customer.

2.8 Nominal Cable Dimensions & Weights

CCT Part Number	No. of Fibers per Tube	Cable OD (mm)	Cable OD (in.)	Weight KG/KM	Weight LB/1000ft
48XXX12AEBSFNN 6-30 Fibers	6	13.0	.510	161	108
4803612AEBSFNN	6	13.7	.540	190	128
4803612AEBSLNN	12	13.0	.510	162	109
4804812AEBSLNN	12	13.0	.510	163	110
4806012AEBSLNN	12	13.0	.510	177	119
4807212AEBSLNN	12	13.7	.540	190	128
4808412AEBSLNN	12	14.7	.580	205	137
4809612AEBSLNN	12	15.6	.615	236	159
4810812AEBSLNN	12	16.8	.660	263	177
4812012AEBSLNN	12	17.7	.695	288	193
4814412AEBSLNN	12	19.4	.765	344	231
4821612AEBSLNN	12	19.6	.773	346	232
4828812AEBSLNN	12	22.4	.880	444	298

3.0 FIBER CHARACTERISTICS

Fiber Type

Multimode Graded Index

Maximum Attenuation @ 850/1300nm

3.0 /1.0 dB/km

Minimum Bandwidth @850/1300nm

400/400MHz-km

Core Diameter, nominal

50 ± 3 µm

Cladding Diameter

125.0 ± 2.0 µm

Primary Coating Diameter

245 ± 10 µm

Cladding Non-circularity

<2%

Core-Clad Concentricity

≤3 µm

Zero Dispersion Wavelength

1297-1316nm

Maximum Zero Dispersion Slope

0.101 ps/nm²-km

Numerical Aperture

0.20 ± .015

Group Refractive Index @ 850/1300nm

1.490/1.486

Proof Test

100 kpsi



4.0 MECHANICAL & ENVIRONMENTAL PERFORMANCE

Maximum Tensile Load for:	Impact Resistance: 25 Impacts (min.)
Installation: 2700N / 607lbf	Flexing, $\pm 90^\circ$: 25 Cycles (min.)
Long Term: 890N / 200lbf	Temperature Rating:
Minimum bending radius:	Operation: -40°C to +70°C
Loaded: 20 x diameter	Installation: -40°C to +55°C
Unloaded: 10 x diameter	Storage: -50°C to +70°C
Crush Resistance: 440N/cm	Twist Test: 25 Cycles (min.)

5.0 PREPARATION FOR DELIVERY

The cable shall be packaged to preclude the inducement of damage due to handling and transportation, and shall be in accordance with the best commercial practices available.

6.0 APPLICABLE DOCUMENTS

Reference Documents:	TIA/EIA FOTP Standards 455
	Color Coding of Fiber Optic Cables TIA/EIA-598
	RUS 1755.900
	GR-20-CORE