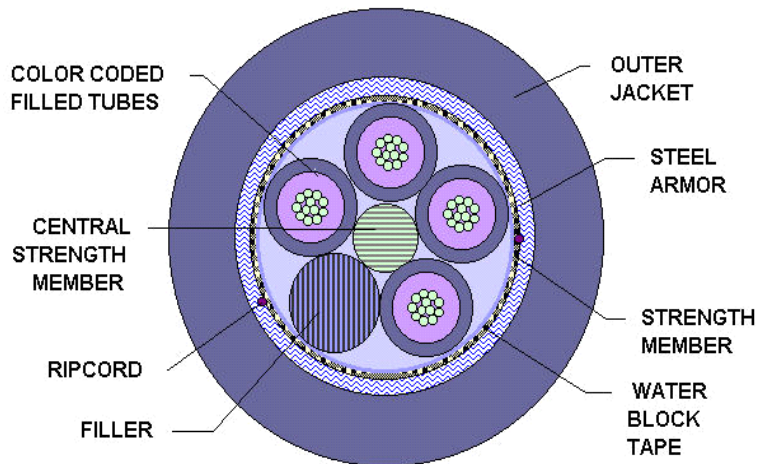




OSP LOOSE TUBE LITE ARMOUR FIBER OPTIC CABLE PRODUCT SPECIFICATION 48XXX76EEBSXWN

This document establishes the specifications for an outdoor, direct burial, armored single mode fiber optic cable, in a dry block loose buffer tube design. This document 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).

Water swellable yarns are to be pulled in with the CSM.



2.3 Cable Core

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

Moisture Resistance: A water blocking tape is applied over the cable core to prevent water ingress and migration with a nominal of 25% overlap.

Non-wicking binder yarns are applied over the core tape.

2.4 Cable strength

Circumferential strength members are placed over the cable core and under the armored 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-SM, TELEPHONE HANDSET SYMBOL (month and year of manufacture), sequentially meter marked. Special print as required by customer.

2.8 Nominal Cable Dimensions & Weights

3.0 MFIBER CHARACTERISTICS

Fiber Type	Single mode*
Maximum Attenuation @ 1310/1550nm	0.40/0.30 dB/km
Cladding Diameter	125.0 ± 0.7 μm
Maximum Core/Clad Concentricity Error	0.5 μm
Maximum Cladding Non-circularity	0.7%
Primary Coating Diameter	245 ± 7 μm
Cabled Cutoff Wavelength	<1260nm
Mode Field Diameter	9.0 ± 0.4μm @1310nm 10.1 ± 0.5μm @1550nm
Temperature Dependence	≤0.05dB/km (-60°C to 85°C)
Zero Dispersion Slope	0.090ps/nm ² -km
Maximum PMD Link Design Value	0.06ps/√km
Group Refractive Index @ 1310/1550	1.467 / 1.468
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 $+70^\circ\text{C}$
Loaded: 20 x diameter	Installation: -40°C to $+55^\circ\text{C}$
Unloaded: 10 x diameter	Storage: -50°C to $+70^\circ\text{C}$
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