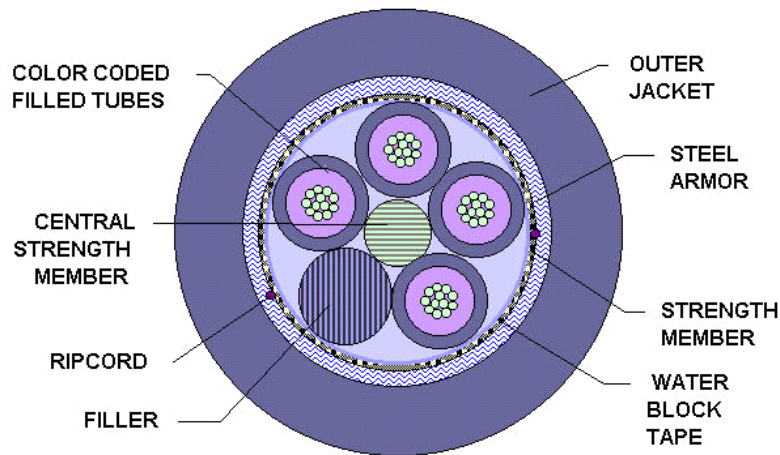




OSP LOOSE TUBE LITE ARMOUR FIBER OPTIC CABLE PRODUCT SPECIFICATION 48XXX12SEBSXWN

This document establishes the specifications for an outdoor, direct burial, armored fiber optic cable, in a dry block 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).

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-50/125 (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	No. of Fibers per Tube	Cable OD (mm)	Cable OD (in.)	Weight KG/KM	Weight LB/1000ft
4800612SEBSFWN	6	6	13.4	.528	160	108
4800812SEBSHWN	8	8	13.4	.528	160	108
4801212SEBSFWN	12	6	13.4	.528	165	111
4801212SEBSLWN	12	12	13.4	.528	165	111
4801612SEBSHWN	16	8	13.4	.528	165	111
4801812SEBSFWN	18	6	13.4	.528	166	112
4802412SEBSFWN	24	6	13.4	.528	167	112
4802412SEBSLWN	24	12	13.4	.528	165	111
4803012SEBSFWN	30	6	13.4	.528	163	110
4803612SEBSFWN	36	6	14.2	.558	185	124
4803612SEBSLWN	36	12	13.4	.528	166	112
4804812SEBSLWN	48	12	13.4	.528	167	112
4806012SEBSLWN	60	12	13.4	.528	163	109
4807212SEBSLWN	72	12	14.2	.558	184	124
4808412SEBSLWN	84	12	15.2	.598	205	138
4809612SEBSLWN	96	12	16.1	.633	224	151
4810812SEBSLWN	108	12	17.2	.678	258	173
4812012SEBSLWN	120	12	18.1	.713	287	193
4814412SEBSLWN	144	12	19.9	.783	342	230
4821612SEBSLWN	216	12	20.5	.809	328	221
4828812SEBSLWN	288	12	23.3	.919	429	288



3.0 **FIBER CHARACTERISTICS**

Fiber Type	Multimode*
Maximum Attenuation @ 850/1300nm	3.0 /1.0 dB/km
LED Performance (Overfilled Launch Bandwidth)	1500/500MHz-km@850/1300
Laser EMB Performance	2000/500MHz-km@850/1300
Core Diameter, nominal	50 ± 3.0 µm
Cladding Diameter	125.0 ± 2.0 µm
Primary Coating Diameter	245 ± 5 µm
Cladding Non-circularity	<2%
Core-Clad Concentricity	≤3.0 µm
Zero Dispersion Wavelength	1300-1320nm
Maximum Zero Dispersion Slope	0.101 ps/nm ² -km
Numerical Aperture	0.20 ± .015
Group Refractive Index @ 850/1300nm	1.481/1.476
Proof Test	100 kpsi

**Guaranteed Gigabit Ethernet Distance of 300mtr at 50nm for 10 Gb/s per IEEE802.3ae and 1000mtr at 850nm for 1 Gb/s per IEEE802.3z.*

4.0 **MECHANICAL & ENVIRONMENTAL PERFORMANCE**

Maximum Tensile Load for:	Impact Resistance: 25 Impacts (min.)
Installation: 2700N / 607lbf	Flexing, ±90°: 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