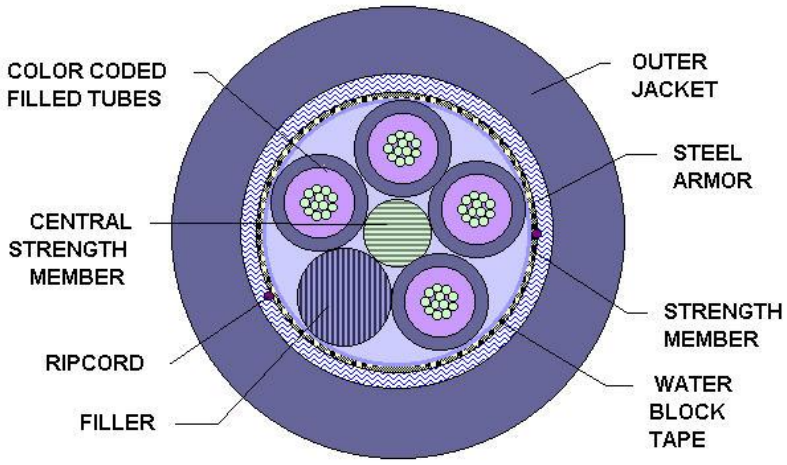
OSP LOOSE TUBE LITE ARMOUR FIBER OPTIC CABLE
PRODUCT SPECIFICATION
48XXX12CEBSXWN

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
4800612CEBSFWN	6	6	13.4	.528	160	108
4800812CEBSHWN	8	8	13.4	.528	160	108
4801212CEBSFWN	12	6	13.4	.528	165	111
4801212CEBSLWN	12	12	13.4	.528	165	111
4801612CEBSHWN	16	8	13.4	.528	165	111
4801812CEBSFWN	18	6	13.4	.528	166	112
4802412CEBSFWN	24	6	13.4	.528	167	112
4802412CEBSLWN	24	12	13.4	.528	165	111
4803012CEBSFWN	30	6	13.4	.528	163	110
4803612CEBSFWN	36	6	14.2	.558	185	124
4803612CEBSLWN	36	12	13.4	.528	166	112
4804812CEBSLWN	48	12	13.4	.528	167	112
4806012CEBSLWN	60	12	13.4	.528	163	109
4807212CEBSLWN	72	12	14.2	.558	184	124
4808412CEBSLWN	84	12	15.2	.598	205	138
4809612CEBSLWN	96	12	16.1	.633	224	151
4810812CEBSLWN	108	12	17.2	.678	258	173
4812012CEBSLWN	120	12	18.1	.713	287	193
4814412CEBSLWN	144	12	19.9	.783	342	230
4821612CEBSLWN	216	12	20.5	.809	328	221
4828812CEBSLWN	288	12	23.3	.919	429	288

3.0 FIBER CHARACTERISTICS

Fiber Type	Multimode*
Maximum Attenuation @ 850/1300nm	3.0 /1.0 dB/km
Minimum Bandwidth @850/1300nm	500/500MHz-km
Core Diameter, nominal	50 ± 2.5 µm
Cladding Diameter	125.0 ± 2.0 µm
Primary Coating Diameter	245 ± 10 µm
Cladding Non-circularity	<1%
Core-Clad Concentricity	≤1.5 µm
Zero Dispersion Wavelength	1300-1320nm
Numerical Aperture	0.20 ± .015
Group Refractive Index @ 850/1300nm	1.483/1.478
Proof Test	100 kpsi

**Guaranteed Gigabit Ethernet Distance of 600/600mtr at 850/1300nm for 1 Gb/s per IEEE802.3z.*

4.0 MECHANICAL & ENVIRONMENTAL PERFORMANCE

Maximum Tensile Load for:
Installation: 2700N / 607lbf
Long Term: 890N / 200lbf
Minimum bending radius:
Loaded: 20 x diameter
Unloaded: 10 x diameter
Crush Resistance: 440N/cm

Impact Resistance: 25 Impacts (min.)
Flexing: ±90°: 25 Cycles (min.)
Temperature Rating:
Operation: -40°C to +70°C
Installation: -40°C to +55°C
Storage: -50°C to +70°
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