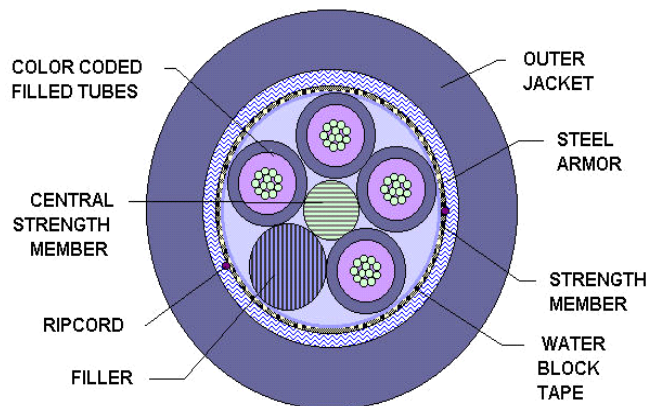




OSP LOOSE TUBE LITE ARMOUR FIBER OPTIC CABLE PRODUCT SPECIFICATION 48XXX74EEBSXWN

This document establishes the specifications for an outdoor, armored single mode 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 PRODUCT CONSTRUCTION

2.1 Buffer Tube

High Modulus Polymeric Material

Dimension: 2.0mm., 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 the 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 and Weights

CCT Part Number	No. of Fibers	No. of Fibers per Tube	Cable OD (mm)	Cable OD (in.)	Weight KG/KM	Weight LB/1000ft
4800674EEBSFWN	6	6	13.4	.528	160	108
4800874EEBSHWN	8	8	13.4	.528	160	108
4801274EEBSFWN	12	6	13.4	.528	165	111
4801274EEBSLWN	12	12	13.4	.528	165	111
4801674EEBSHWN	16	8	13.4	.528	165	111
4801874EEBSFWN	18	6	13.4	.528	166	112
4802474EEBSFWN	24	6	13.4	.528	167	112
4802474EEBSLWN	24	12	13.4	.528	165	111
4803074EEBSFWN	30	6	13.4	.528	163	110
4803674EEBSFWN	36	6	14.2	.558	185	124
4803674EEBSLWN	36	12	13.4	.528	166	112
4804874EEBSLWN	48	12	13.4	.528	167	112
4806074EEBSLWN	60	12	13.4	.528	163	109
4807274EEBSLWN	72	12	14.2	.558	184	124
4808474EEBSLWN	84	12	15.2	.598	205	138
4809674EEBSLWN	96	12	16.1	.633	224	151
4810874EEBSLWN	108	12	17.2	.678	258	173
4812074EEBSLWN	120	12	18.1	.713	287	193
4814474EEBSLWN	144	12	19.9	.783	342	230
4821674EEBSLWN	216	12	20.5	.809	328	221
4828874EEBSLWN	288	12	23.3	.919	429	288



3.0 **FIBER CHARACTERISTICS**

Fiber Type	Single mode* (*ITU G.652c,d)
Attenuation @ 1310/1550nm	$\leq 35/.25$ dB/km
Core Diameter, nominal	8.2 μm
Cladding Diameter	125.0 ± 0.7 μm
Maximum Core/Clad Concentricity Error	0.5 μm
Maximum Cladding Non-circularity	1.0%
Primary Coating Diameter	245 ± 5 μm
Cabled Cutoff Wavelength	<1260 nm
Mode Field Diameter @ 1310nm	9.2 ± 0.4 μm
Mode Field Diameter @ 1550nm	10.4 ± 0.8 μm
Temperature Dependence	≤ 0.05 dB/km (-60°C to 85°C)
Zero Dispersion Slope	≤ 0.092 ps/nm ² - km
Maximum PMD Link Design Value	0.08ps/ $\sqrt{\text{km}}$
Group Refractive Index @ 1310/1550nm	1.4677/1.4682
Proof Test	100 kpsi

4.0 **MECHANICAL AND ENVIRONMENTAL PERFORMANCE**

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

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