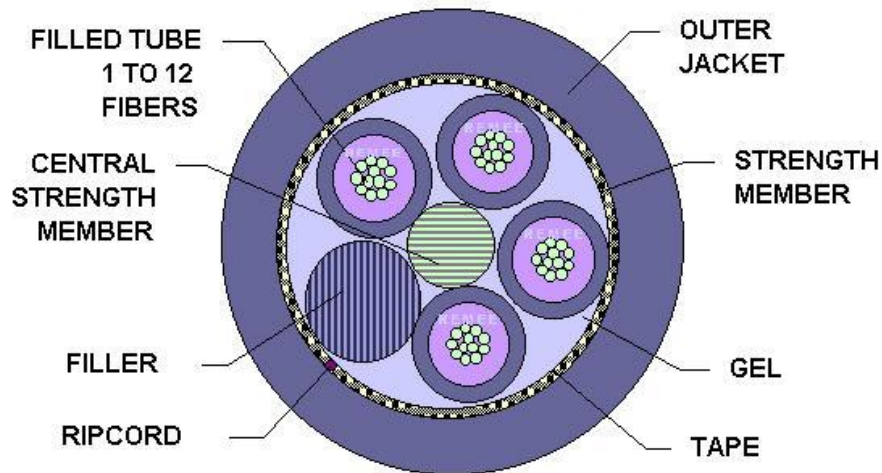




OSP LOOSE TUBE ALL DIELECTRIC FIBER OPTIC CABLE PRODUCT SPECIFICATION 42XXX76EEBSXNN

This document establishes the specifications for an outdoor, all-dielectric, single mode, flooded fiber optic cable in a 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 outer sheath.

2.5 Outer Sheath

UV Resistant Black Polyethylene (or color per customer request).

A ripcord is applied under the outer sheath.

2.6 Cable Markings

Indent printed: CCT GROUP42, FIBER OPTIC CABLE, # of fibers-SM, TELEPHONE HANDSET SYMBOL (month and year of manufacture), sequentially meter marked. Special print as required by customer.

2.7 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
4200676EEBSFNN	6	6	10.8	.425	93	62
4200876EEBSHNN	8	8	10.8	.425	93	62
4201076EEBSJNN	10	10	10.8	.425	94	63
4201276EEBSFNN	12	6	10.8	.425	94	63
4201276EEBSLNN	12	12	10.8	.425	94	63
4201676EEBSJNN	16	8	10.8	.425	94	63
4201876EEBSFNN	18	6	10.8	.425	94	63
4202476EEBSFNN	24	6	10.8	.425	95	64
4202476EEBSLNN	24	12	10.8	.425	93	63
4203076EEBSFNN	30	6	10.8	.425	96	64
4203676EEBSFNN	36	6	11.6	.473	113	76
4203676EEBSLNN	36	12	10.8	.425	94	63
4204876EEBSLNN	48	12	10.8	.425	96	64
4206076EEBSLNN	60	12	10.8	.425	96	64
4207276EEBSLNN	72	12	11.6	.455	113	76
4208476EEBSLNN	84	12	12.6	.495	131	88
4209676EEBSLNN	96	12	13.5	.530	148	100
4210876EEBSLNN	108	12	14.6	.575	168	113
4212076EEBSLNN	120	12	15.5	.610	192	129
4214476EEBSLNN	144	12	16.4	.645	239	161
4221676EEBSLNN	216	12	17.7	.698	247	166
4228876EEBSLNN	288	12	20.5	.808	335	225



3.0 FIBER CHARACTERISTICS

Fiber Type	Single mode*
Maximum Attenuation @ 1310/1550nm	0.40/0.30 dB/km
Core Diameter	8.2 μm
Cladding Diameter	125.0 \pm 0.7 μm
Maximum Core/Clad Concentricity Error	0.5 μm
Maximum Cladding Non-circularity	0.7%
Primary Coating Diameter	245 \pm 5 μm
Cabled Cutoff Wavelength	<1260nm
Mode Field Diameter	9.2 \pm 0.4 μm @1310nm 10.4 \pm 0.5 μm @1550nm
Temperature Dependence	\leq 0.05dB/km (-60°C to 85°C)
Zero Dispersion Slope	0.089ps/nm ² -km
Maximum PMD Link Design Value	0.06ps/ $\sqrt{\text{km}}$
Group Refractive Index @ 1310/1550	1.4677 / 1.4682
Proof Test	100 kpsi

*According to ITU G.652.d

4.0 MECHANICAL & ENVIRONMENTAL PERFORMANCE

Maximum Tensile Load for:	Impact Resistance: 25 Impacts (min.)
Installation: 2700N / 607lbf	Flexing, \pm 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: 220N/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	