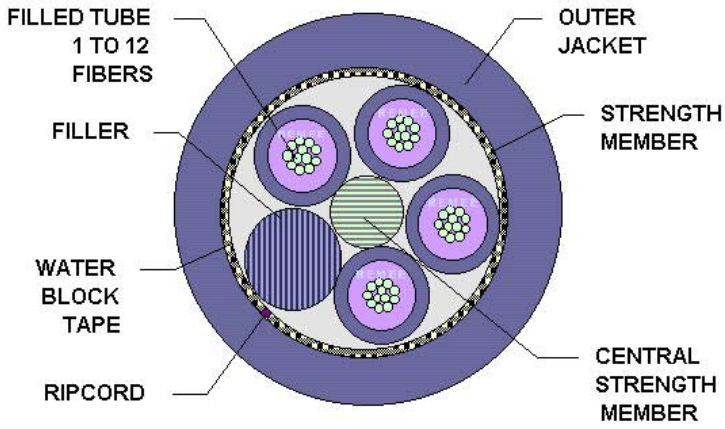
OSP LOOSE TUBE ALL DIELECTRIC FIBER OPTIC CABLE
PRODUCT SPECIFICATIONS
42XXX76EEBSXWN

This document establishes the specifications for an outdoor, all dielectric, single mode, dry block 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 for ≥6 fibers, 2.2mm, nominal for a 4 fiber cable and 1.98mm, nominal for a 2 fiber cable.
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 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 GROUP 42, 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
4200276EEBSBWN	2	2	9.6	.379	50	34
4200476EEBSDWN	4	4	9.8	.386	52	35
4200676EEBSFWN	6	6	11.3	.443	90	61
4200876EEBSHWN	8	8	11.3	.443	90	61
4201276EEBSFWN	12	6	11.3	.443	91	61
4201276EEBSLWN	12	12	11.3	.443	91	61
4201876EEBSFWN	18	6	11.3	.443	91	62
4202476EEBSFWN	24	6	11.3	.443	92	62
4202476EEBSLWN	24	12	11.3	.443	93	61
4203076EEBSFWN	30	6	11.3	.443	94	63
4203676EEBSFWN	36	6	12.0	.473	110	74
4203676EEBSLWN	36	12	11.3	.443	90	61
4204876EEBSLWN	48	12	11.3	.443	90	61
4206076EEBSLWN	60	12	11.3	.443	90	61
4207276EEBSLWN	72	12	12.0	.473	110	74
4208476EEBSLWN	84	12	13.0	.513	127	85
4209676EEBSLWN	96	12	13.9	.548	140	94
4210876EEBSLWN	108	12	15.1	.593	168	113
4212076EEBSLWN	120	12	16.0	.628	188	127
4214476EEBSLWN	144	12	17.7	.698	231	155
4216876EEBSLWN	168	12	17.9	.704	209	140
4221676EEBSLWN	216	12	18.6	.734	235	158
4224076EEBSLWN	240	12	19.7	.774	255	171
4228876EEBSLWN	288	12	21.4	.844	317	213

3.0 FIBER CHARACTERISTICS

Fiber Type	Single mode*
Maximum Attenuation @ 1310/1550nm	040/0.30 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

**According to ITU G.652.d*

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: 220N/cm

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

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