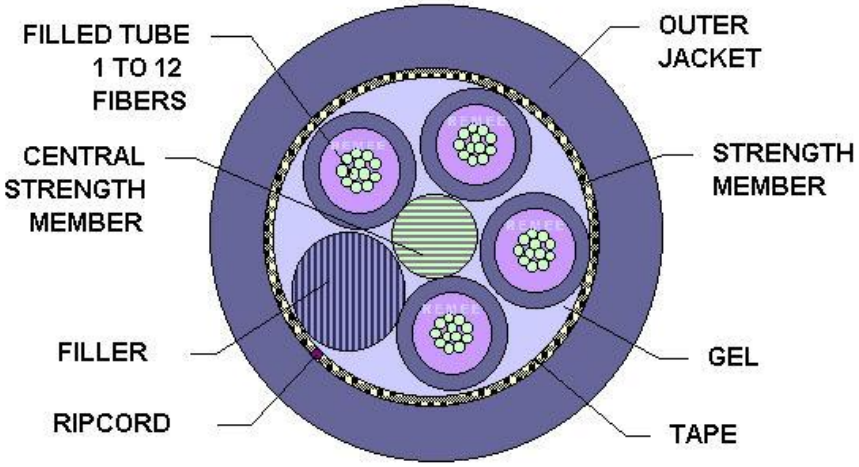
OSP LOOSE TUBE ALL DIELECTRIC FIBER OPTIC CABLE
PRODUCT SPECIFICATIONS
42XXX22JEBSXNN

This document establishes the specifications for an outdoor, all-dielectric, multimode, flooded fiber optic cable in a loose buffer tube design. This document 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-62.5/125, (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 Fiber	No. of Fibers per Tube	Cable OD (mm)	Cable OD (in.)	Weight KG/KM	Weight LB/1000ft
4200622JEBSFNN	6	6	10.8	.425	93	62
4200822JEBSHNN	8	8	10.8	.425	93	62
4201022JEBSJNN	10	10	10.8	.425	94	63
4201222JEBSFNN	12	6	10.8	.425	94	63
4201222JEBSLNN	12	12	10.8	.425	94	63
4201622JEBSJNN	16	8	10.8	.425	94	63
4201822JEBSFNN	18	6	10.8	.425	94	63
4202422JEBSFNN	24	6	10.8	.425	95	64
4202422JEBSLNN	24	12	10.8	.425	93	63
4203022JEBSFNN	30	6	10.8	.425	96	64
4203622JEBSFNN	36	6	11.6	.473	113	76
4203622JEBSLNN	36	12	10.8	.425	94	63
4204822JEBSLNN	48	12	10.8	.425	96	64
4206022JEBSLNN	60	12	10.8	.425	96	64
4207222JEBSLNN	72	12	11.6	.455	113	76
4208422JEBSLNN	84	12	12.6	.495	131	88
4209622JEBSLNN	96	12	13.5	.530	148	100
4210822JEBSLNN	108	12	14.6	.575	168	113
4212022JEBSLNN	120	12	15.5	.610	192	129
4214422JEBSLNN	144	12	16.4	.645	239	161
4221622JEBSLNN	216	12	17.7	.698	247	166
4228822JEBSLNN	288	12	20.5	.808	335	225

3.0 FIBER CHARACTERISTICS

Fiber Type	Multimode Graded Index
Maximum Attenuation @ 850/1300nm	3.2 /1.0 dB/km
Minimum Bandwidth @850/1300nm	200/600MHz-km
Core Diameter, nominal	62.5 ± 3 µm
Cladding Diameter	125.0 ± 1.0 µm
Primary Coating Diameter	245 ± 10 µm
Cladding Non-circularity	<2%
Core/Clad Offset	3 µm
Zero Dispersion Wavelength	1320-1365nm
Numerical Aperture	0.275 ± .015
Group Refractive Index @ 850/1300nm	1.496/1.491
Proof Test	100 kpsi

*Guaranteed Gigabit Ethernet Distance of 300/550mtr 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: 220N/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°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