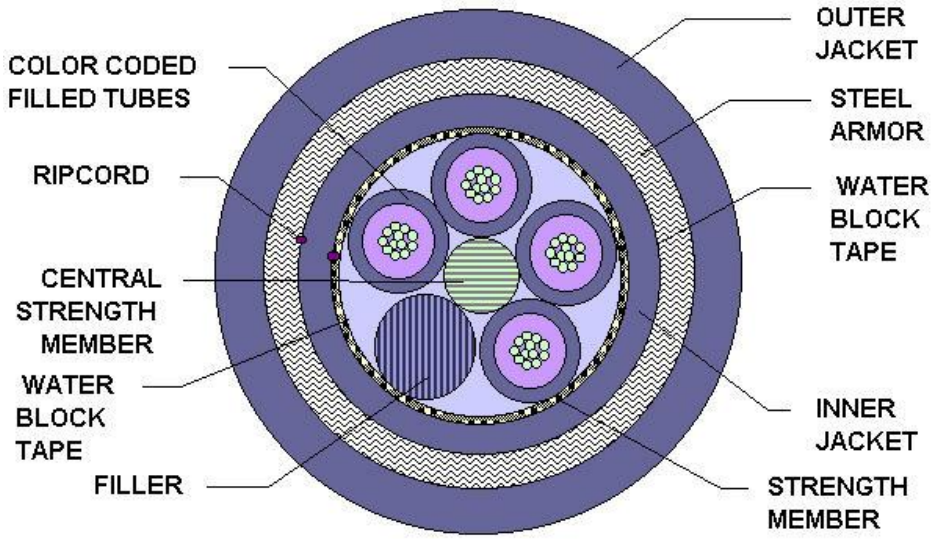
OSP LOOSE TUBE DIRECT BURIAL FIBER OPTIC CABLE
PRODUCT SPECIFICATION
43XXX22JMBSXWN

This document establishes the specifications for an outdoor, direct burial, armored multimode 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 outer sheath.

2.5 Inner Sheath
Polyethylene
A ripcord is applied under the inner sheath.

2.6 Moisture Resistance
A water blocking tape is applied over the cable core to prevent water ingress and migration with a nominal of 25% overlap.

2.7 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.

2.8 Outer Sheath
UV Resistant Black Polyethylene

2.9 Cable Markings
Indent printed: CCT GROUP43, FIBER OPTIC CABLE, # of fibers-62.5/125, (month and year of manufacture), sequentially meter marked. Special print as required by customer.

2.10 Nominal Cable Dimensions & Weights

CCT Part Number	No. of Fibers per Tube	Cable OD (mm)	Cable OD (in.)	Weight KG/KM	Weight LB/1000ft
43XXX22JMBSFWN 6-30 Fibers	6	15.7	.619	214	144
4303622JMBSFWN	6	16.5	.649	235	158
4303622JMBSLWN	12	15.7	.619	214	144
4304822JMBSLWN	12	15.7	.619	215	145
4306022JMBSLWN	12	15.7	.619	215	145
4307222JMBSLWN	12	16.5	.649	235	158
4308422JMBSLWN	12	17.5	.689	268	180
4309622JMBSLWN	12	18.4	.724	280	188
4310822JMBSLWN	12	19.8	.779	333	224
4312022JMBSLWN	12	20.7	.814	356	239
4314422JMBSLWN	12	22.5	.884	415	279
4321622JMBSLWN	12	23.1	.910	428	288
4328822JMBSLWN	12	25.9	1.020	508	341

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: 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°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