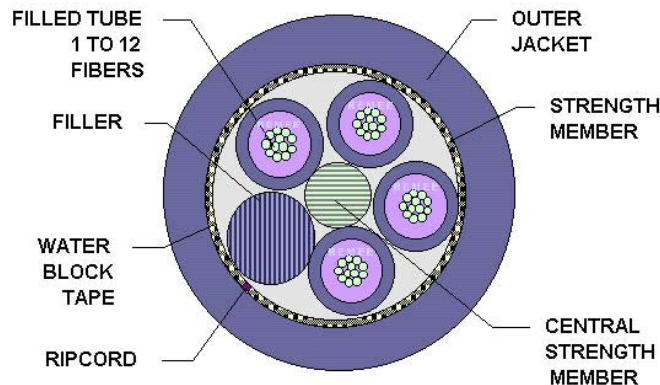




OSP LOOSE TUBE ALL DIELECTRIC FIBER OPTIC CABLE PRODUCT SPECIFICATIONS 42XXX22LEBSXWN

This document establishes the specifications for an outdoor, all dielectric, multimode, 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 GROUP42, FIBER OPTIC CABLE, # of fibers-62.5/125, MM/YY (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 |
|-----------------|---------------|------------------------|---------------|----------------|--------------|------------------|
| 4200222LEBSBWN | 2 | 2 | 9.6 | .379 | 50 | 34 |
| 4200422LEBSDWN | 4 | 4 | 9.8 | .386 | 52 | 35 |
| 4200622LEBSFWN | 6 | 6 | 11.3 | .443 | 90 | 61 |
| 4200822LEBSHWN | 8 | 8 | 11.3 | .443 | 90 | 61 |
| 4201222LEBSFWN | 12 | 6 | 11.3 | .443 | 91 | 61 |
| 4201222LEBSLWN | 12 | 12 | 11.3 | .443 | 91 | 61 |
| 4201822LEBSFWN | 18 | 6 | 11.3 | .443 | 91 | 62 |
| 4202422LEBSFWN | 24 | 6 | 11.3 | .443 | 92 | 62 |
| 4202422LEBSLWN | 24 | 12 | 11.3 | .443 | 93 | 61 |
| 4203022LEBSFWN | 30 | 6 | 11.3 | .443 | 94 | 63 |
| 4203622LEBSFWN | 36 | 6 | 12.0 | .473 | 110 | 74 |
| 4203622LEBSLWN | 36 | 12 | 11.3 | .443 | 90 | 61 |
| 4204822LEBSLWN | 48 | 12 | 11.3 | .443 | 90 | 61 |
| 4206022LEBSLWN | 60 | 12 | 11.3 | .443 | 90 | 61 |
| 4207222LEBSLWN | 72 | 12 | 12.0 | .473 | 110 | 74 |
| 4208422LEBSLWN | 84 | 12 | 13.0 | .513 | 127 | 85 |
| 4209622LEBSLWN | 96 | 12 | 13.9 | .548 | 140 | 94 |
| 4210822LEBSLWN | 108 | 12 | 15.1 | .593 | 168 | 113 |
| 4212022LEBSLWN | 120 | 12 | 16.0 | .628 | 188 | 127 |
| 4214422LEBSLWN | 144 | 12 | 17.7 | .698 | 231 | 155 |
| 4216822LEBSLWN | 168 | 12 | 17.9 | .704 | 209 | 140 |
| 4221622LEBSLWN | 216 | 12 | 18.6 | .734 | 235 | 158 |
| 4224022LEBSLWN | 240 | 12 | 19.7 | .774 | 255 | 171 |
| 4228822LEBSLWN | 288 | 12 | 21.4 | .844 | 317 | 213 |

3.0 FIBER CHARACTERISTICS

Fiber Type

Maximum Attenuation @ 850/1300nm
 Minimum Bandwidth @850/1300nm
 Core Diameter, nominal
 Cladding Diameter
 Primary Coating Diameter
 Cladding Non-circularity
 Core/Clad Offset
 Zero Dispersion Wavelength
 Numerical Aperture
 Group Refractive Index @ 850/1300nm
 Proof Test

Multimode Graded Index

3.2 /1.0 dB/km
 350/500MHz-km
 62.5 ± 2.5 µm
 125.0 ± 1.0 µm
 245 ± 10 µm
 <1%
 1 µm
 1320-1365nm
 0.275 ± .015
 1.496/1.491
 100 kpsi

**Guaranteed Gigabit Ethernet Distance of 500/1000mtr per IEEE802.3z.*



4.0 MECHANICAL & ENVIRONMENTAL PERFORMANCE

| | |
|------------------------------|--|
| Maximum Tensile Load for: | Impact Resistance: 25 Impacts (min.) |
| Installation: 2700N / 607lbf | Flexing, $\pm 90^\circ$: 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

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