

1.0 SCOPE

This document establishes the specification requirements for an indoor/outdoor distribution fiberoptic cable. This cable construction consists of multimode OM2 fibers in a distribution tight-buffered design with a riser rated PVC jacket.

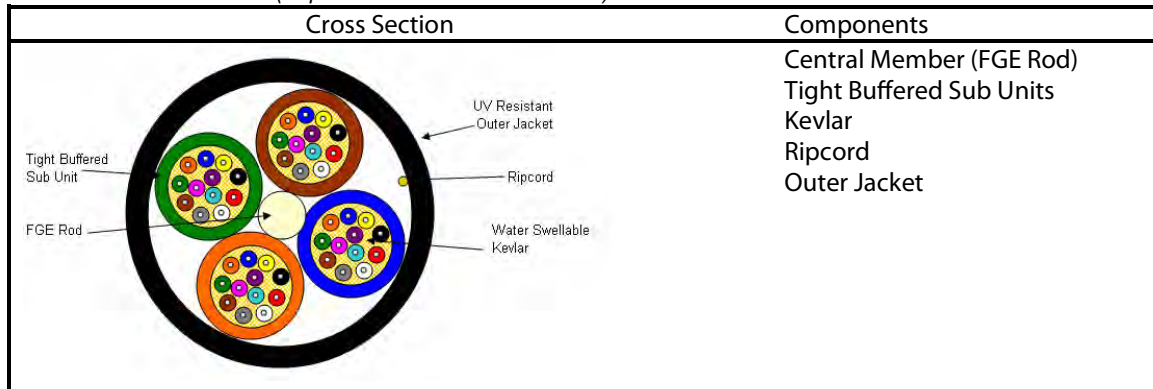
2.0 APPLICABLE DOCUMENTS

Reference Documents: TIA/EIA FOTP Standards 455
Color Coding of Fiber Optic Cables TIA/EIA -598
UL 1666
GR -409-CORE

3.0 REQUIREMENTS

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.

4.0 CABLE CROSS SECTION *(Representation of a 48 fiber cable)*



5.0 OVERALL CABLE CONSTRUCTION

5.1 Tight Buffered Fiber

Dimension: 900µm, nominal.

Tight buffered fiber color code: 1 -blue, 2 -orange, 3 -green, 4 -brown, 5 -slate, 6 -white, 7 -red, 8 -black, 9 -yellow, 10 -violet, 11 -rose, and 12 -aqua.

5.2 Sub-unit consists of water swellable aramid yarns that are pulled in with the tight-buffered fibers under a sub-unit jacket. The subunits are colored per TIA/EIA -598 or orange and are numbered for identification.

5.3 Cable strength Member

Fiberglass Epoxy Rod (dielectric)

An up coat of PVC (if necessary per construction for symmetry).

5.4 Cable Core

Sub-units and fillers (if needed) are stranded around the CSM, using reverse oscillation.

Binder yarns are applied over the cable core.

5.5 Outer Sheath

UV Resistant Black riser rated PVC jacket (or color per customer request)

5.6 Cable Markings

REMFO 11 SERIES, FIBER OPTIC CABLE, XX (denotes number of fibers) -50/125, 10GIG OM2, REMEE PRODUCTS CORP., MM/YY (month & year of manufacture), OFNR C(ETL)US, Sequentially marked. Special print as required by customer.

5.7 Nominal Cable Dimensions & Weights

| Remeer Products Part Number | No. of Fibers | Cable OD (mm) | Cable OD (in.) | Weight KG/KM | Weight LB/1000ft |
|--------------------------------|---------------|------------------|-------------------|-----------------|---------------------|
| 11-018-12D-GBSFXX | 18 | 13.7 | 0.540 | 142 | 96 |
| 11-024-12D-GBSFXX | 24 | 13.7 | 0.540 | 142 | 96 |
| 11-036-12D-GBSFXX | 36 | 16.8 | 0.660 | 221 | 148 |
| 11-048-12D-GBSLXX | 48 | 16.0 | 0.628 | 198 | 133 |
| 11-060-12D-GBSLXX | 60 | 17.7 | 0.696 | 233 | 157 |
| 11-072-12D-GBSLXX | 72 | 19.3 | 0.760 | 302 | 203 |
| 11-096-12D-GBSLXX | 96 | 23.4 | 0.920 | 447 | 300 |
| 11-144-12D-GBSLXX | 144 | 27.9 | 1.098 | 586 | 394 |

6.0 FIBER CHARACTERISTICS

6.1 Physical Parameters (nominal)

| Fiber Type | Multimode OM2* |
|---|----------------|
| Maximum Attenuation @ 850/1300nm** | 3.0 /1.0 dB/km |
| Minimum Bandwidth @850/1300nm [Overfilled Launch, LED based sources] | 750/500MHz -km |
| Transmission Link Lengths at 850nm & 1300nm(LX4) for 10Gb/s* | 150/150mtrs |
| Core Diameter, nominal | 50 ± 2.5 µm |
| Cladding Diameter | 125.0 ± 1.0 µm |
| Primary Coating Diameter | 245 ± 10 µm |
| Cladding Non -circularity | <1% |
| Core -Clad Concentricity | ≤1.5 µm |
| Zero Dispersion Wavelength | 1295 -1320 nm |
| Numerical Aperture | 0.20 ± .015 |
| Group Refractive Index @ 850/1300nm | 1.483/1.478 |
| Proof Test | 100 kpsi |

*At 850nm operating wavelength with transmitters meeting encircled flux of ≤30% at radius 4.5µm and ≥86% at radius 19.0µm.
**Measured attenuations on shipping reels will not exceed the nominal values by .75dB/km.

7.0 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 +85°C

Installation, 0°C to +75°C

Storage, -55°C to +85°C

8.0 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.



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