

**1.0 SCOPE**

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

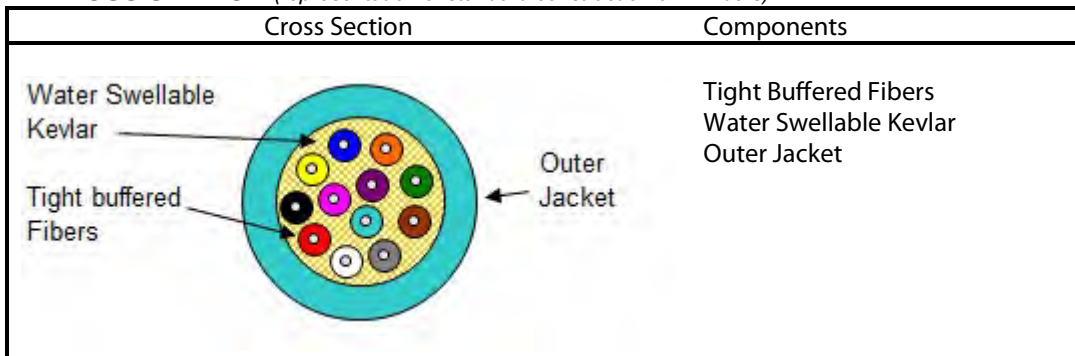
**2.0 APPLICABLE DOCUMENTS**

Reference Documents: TIA/EIA FOTP Standards 455  
Color Coding of Fiber Optic Cables TIA/EIA -598  
UL 910  
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 standard construction of 12 fibers)



**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 Cable strength

Water swellable aramid yarns are pulled in with the tight -buffered fibers under the outer jacket.

5.3 Outer Sheath

Aqua UV Resistant plenum rated jacket (or color per customer request)

5.4 Cable Markings

REMFO 33 SERIES, FIBER OPTIC CABLE, XX (No. of fibers) -50/125, 10GIG OM 2, REMEE PRODUCTS CORP., MM/YY (month & year of manufacture), OFNP C(ETL)US , Sequentially meter marked.

Special print as required by customer.

5.5 Nominal Cable Dimensions & Weights

| Remees Products Part Number | No. of Fibers | Cable OD (mm) | Cable OD (in.) | Weight KG/KM | Weight LB/1000ft |
|-----------------------------|---------------|---------------|----------------|--------------|------------------|
| 33-002-12D-R ANOOP          | 2             | 4.3           | .170           | 18           | 12               |
| 33-004-12D-R ANOOP          | 4             | 4.4           | .185           | 21           | 14               |
| 33-006-12D-R ANOOP          | 6             | 4.6           | .200           | 27           | 18               |
| 33-008-12D-R ANOOP          | 8             | 5.0           | .215           | 31           | 20               |
| 33-012-12D-R ANOOP          | 12            | 5.8           | .250           | 39           | 26               |

**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<br>[Overfilled Launch, LED based sources] | 750/500MHz -km |
| Transmission Link Lengths at 850nm &<br>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 -1320nm   |
| 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: 4-fiber 1405N/315lbf, 6&8-fiber 1610N/362lbf  
 12-fiber 2700N/600lbf

Long Term: 4-fiber 455N/102lbf, 6&8-fiber 535N/120lbf  
 12-fiber 600N/135lbf

Minimum bending radius:

Loaded: 20 x diameter  
 Unloaded: 10 x diameter

Impact Resistance: 25 Impacts (min.)

Flexing, ±90°: 25 Cycles (min.)

Crush Resistance: 100N/cm

Temperature rating\*:

Operation, -20°C to +85°C  
 Installation, 0°C to +75°C  
 Storage, -40°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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