

1.0 SCOPE

This document establishes the specification requirements for an indoor/outdoor singlemode OS1, fiberoptic breakout cable. This cable construction consists of tight-buffered fiber in a sub-unit construction with an overall riser rated PVC jacket.

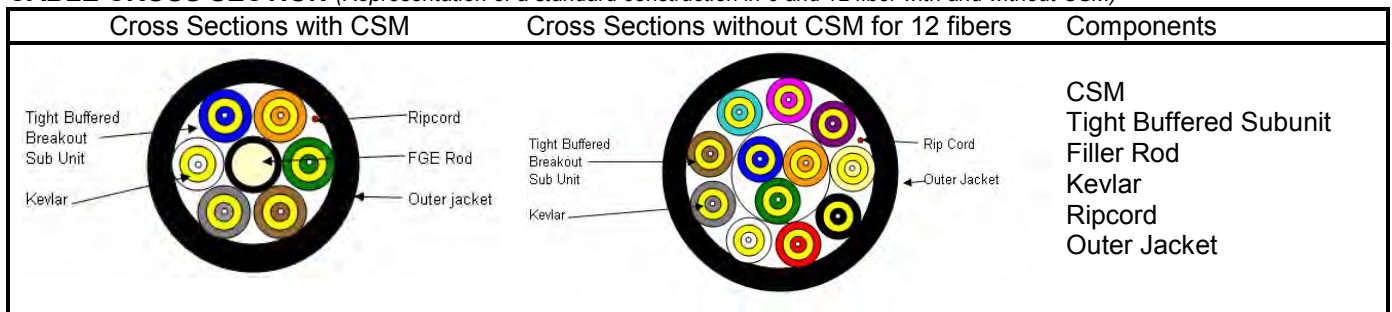
2.0 APPLICABLE DOCUMENTS

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

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 standard construction in 6 and 12 fiber with and without CSM)*



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, 12-aqua (or per customer request)

5.2 Sub-unit consisting of 1 fiber per unit.

Thermoplastic Elastomeric Material

Water swellable aramid yarns are pulled in with the tight-buffered fiber under the sub unit jacket.

Dimension: 2.4mm

Sub-unit color code: 1-blue, 2-orange, 3-green, 4-brown, 5-slate, 6-white, 7-red, 8-black, 9-yellow, 10-violet, 11-rose, 12-aqua or numbered orange channels with white tight buffered fibers. (or per customer request).

5.3 Central Strength Member (No CSM on 12 fiber cable)

Fiberglass Epoxy Rod (Dielectric)

If necessary, an up-coat of PVC.

5.4 Cable Core

Sub-units and fillers if necessary are stranded around the CSM where applicable.

Binder yarns are applied over the core.

5.5 Outer Sheath

Pressure Extruded UV Resistant Black Riser rated PVC (Color as required by customer)

A ripcord is applied under the outer sheath.

5.6 Cable Markings

Indent printed- REMFO 12 SERIES, FIBER OPTIC CABLE, No. of Fibers-SM, REMEE PRODUCTS CORP., MM/YY (month & year of manufacture), OFNR C(ETL)US, Sequentially meter marked.

Special print as required by customer.

5.7 Nominal Cable Dimensions & Weights

Remelee Products Part Number	No. of Fibers	Cable OD (in.)	Cable OD (mm)	Weight LB/MFT	Weight KG/KM
12-002-76M-GBSAXF	2	0.320	8.1	37	55
12-004-76M-GBSAXF	4	0.320	8.1	35	53
12-006-76M-GBSAXF	6	0.381	9.7	57	85
12-008-76M-GBSAXF	8	0.440	11.2	71	105
12-012-76M-GBNAXF	12	0.490	12.4	77	115
12-024-76M-GBSAXF	24	0.685	17.4	162	241
12-036-76M-GBSAXF	36	0.778	19.8	198	295

6.0 FIBER CHARACTERISTICS

6.1 Physical Parameters (nominal)

Fiber Type	Singlemode*
Maximum Attenuation @ 1310/1550nm	.40/.30 dB/km
Core Diameter, nominal	8.3 μm
Cladding Diameter	125.0 ± 1.0 μm
Primary Coating Diameter	245 ± 10 μm
Maximum Dispersion Slope	0.092 ps/nm ² -km
Fiber Cutoff Wavelength	1150-1350nm
Cabled Cutoff Wavelength	<1260nm
Mode Field Diameter @ 1310nm	9.2 ± 0.4μm
Mode Field Diameter @ 1550nm	10.5 ± 1.0μm
Cladding Non-circularity	<1%
Core/Clad Offset	<.80 μm
Zero Dispersion Wavelength	1300-1322nm
Numerical Aperture	0.13
Group Refractive Index @ 1310/1550nm	1.467/1.4675
Proof Test	100 kpsi

*According to ITU G.652b



1751 State Rte 17A Florida, NY 10921
800 431-3864

7.0 MECHANICAL & ENVIRONMENTAL PERFORMANCE

Maximum Tensile Load for:

Installation: 2&4-fiber 1900N/427lbf,
6 to 36-fiber 2700N/600lbf
Long Term: 2&4-fiber 760N/171lbf,
6 to 36-fiber 600N/135lbf

Minimum bending radius:

Loaded: 20 x diameter
Unloaded: 10 x diameter

Impact Resistance: 25 Impacts (min.)

Flexing, $\pm 90^\circ$: 25 Cycles (min.)

Temperature rating:

Operation, -40°C to +85°C

Installation, 0°C to +75°C

Storage, -55°C to +85°C

Crush Resistance: 100N/cm

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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