

**1.0 SCOPE**

This document establishes the specifications for an outdoor, all dielectric, singlemode, dry block fiber optic cable in a loose buffer tube design.

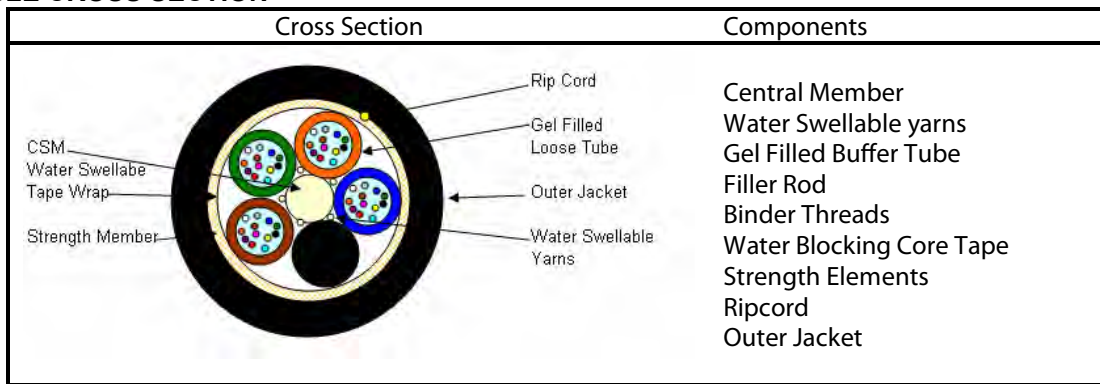
**2.0 APPLICABLE DOCUMENTS**

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

**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**



**5.0 OVERALL CABLE CONSTRUCTION**

- 5.1 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.
- 5.2 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.
- 5.3 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.
- 5.4 Cable strength  
Circumferential strength members are placed over the cable core and under the outer sheath.
- 5.5 Outer Sheath  
UV Resistant Black Polyethylene. (or color per customer request)  
A ripcord is applied under the outer sheath.
- 5.6 Cable Markings  
Indent printed- REMFO 22 SERIES, FIBER OPTIC CAB LE, # of fibers -SM, REMEE PRODUCTS CORP., TELEPHONE HANDSET SYMBOL, MM/YY (Month & Year of manufacture), Sequentially meter marked.  
Special print as required by customer.

Date: August 5, 2011

## 5.7 Nominal Cable Dimensions &amp; Weights

Remeo Products Part Number	No. of Fibers	No. of Fibers per Tube	Cable OD (mm)	Cable OD (in.)	Weight KG/KM	Weight LB/1000ft
22-002-74M-EBSBWN	2	2	9.6	.379	50	34
22-004-74M-EBSDWN	4	4	9.8	.386	52	35
22-006-74M-EBSFWN	6	6	11.3	.443	90	61
22-008-74M-EBSHWN	8	8	11.3	.443	90	61
22-012-74M-EBSFWN	12	6	11.3	.443	91	61
22-012-74M-EBSLWN	12	12	11.3	.443	91	61
22-018-74M-EBSFWN	18	6	11.3	.443	91	62
22-024-74M-EBSFWN	24	6	11.3	.443	92	62
22-024-74M-EBSLWN	24	12	11.3	.443	93	61
22-030-74M-EBSFWN	30	6	11.3	.443	94	63
22-036-74M-EBSFWN	36	6	12.0	.473	110	74
22-036-74M-EBSLWN	36	12	11.3	.443	90	61
22-048-74M-EBSLWN	48	12	11.3	.443	90	61
22-060-74M-EBSLWN	60	12	11.3	.443	90	61
22-072-74M-EBSLWN	72	12	12.0	.473	110	74
22-084-74M-EBSLWN	84	12	13.0	.513	127	85
22-096-74M-EBSLWN	96	12	13.9	.548	140	94
22-108-74M-EBSLWN	108	12	15.1	.593	168	113
22-120-74M-EBSLWN	120	12	16.0	.628	188	127
22-144-74M-EBSLWN	144	12	17.7	.698	231	155
22-168-74M-EBSLWN	168	12	17.9	.704	209	140
22-216-74M-EBSLWN	216	12	18.6	.734	235	158
22-240-74M-EBSLWN	240	12	19.7	.774	255	171
22-288-74M-EBSLWN	288	12	21.4	.844	317	213

## 6.0 FIBER CHARACTERISTICS

Fiber Type	Singlemode *
Attenuation @ 1310/1550nm	≤.35/.25 dB/km
Core Diameter, nominal	8.3 μm
Cladding Diameter	125.0 ± 1.0 μm
Primary Coating Diameter	245 ± 10 μm
Dispersion Slope	≤0.092 ps/nm <sup>2</sup> -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

\*ITU G.652b



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## 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,  $\pm 90^\circ$ : 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.)

## 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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