

1.0 SCOPE

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

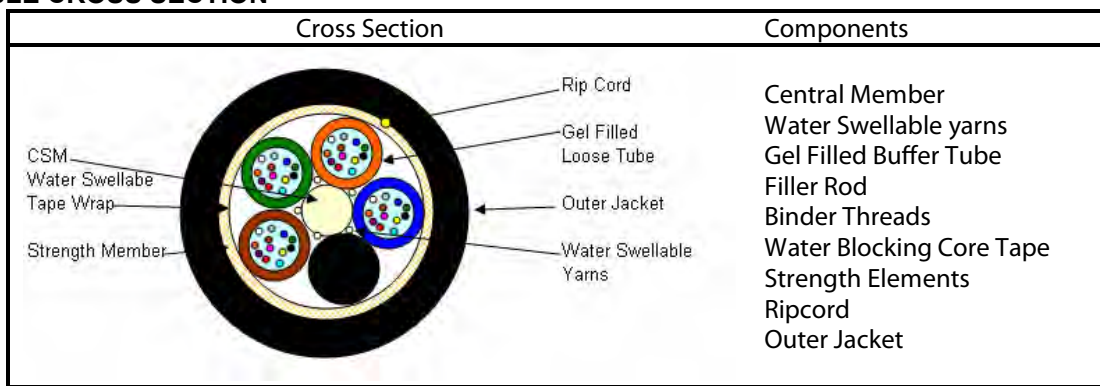
2.0 APPLICABLE DOCUMENTS

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 CABL E, # of fibers -SM, REMEE PRODUCTS CORP., TELEPHONE HANDSET SYMBOL, MM/YY (Month & Year of manufacture), Sequentially meter marked.
Special print as required by customer.

5.7 Nominal Cable Dimensions & 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
22-002-76E-EBSBWN	2	2	9.6	.379	50	34
22-004-76E-EBSDWN	4	4	9.8	.386	52	35
22-006-76E-EBSFWN	6	6	11.3	.443	90	61
22-008-76E-EBSHWN	8	8	11.3	.443	90	61
22-012-76E-EBSFWN	12	6	11.3	.443	91	61
22-012-76E-EBSLWN	12	12	11.3	.443	91	61
22-018-76E-EBSFWN	18	6	11.3	.443	91	62
22-024-76E-EBSFWN	24	6	11.3	.443	92	62
22-024-76E-EBSLWN	24	12	11.3	.443	93	61
22-030-76E-EBSFWN	30	6	11.3	.443	94	63
22-036-76E-EBSFWN	36	6	12.0	.473	110	74
22-036-76E-EBSLWN	36	12	11.3	.443	90	61
22-048-76E-EBSLWN	48	12	11.3	.443	90	61
22-060-76E-EBSLWN	60	12	11.3	.443	90	61
22-072-76E-EBSLWN	72	12	12.0	.473	110	74
22-084-76E-EBSLWN	84	12	13.0	.513	127	85
22-096-76E-EBSLWN	96	12	13.9	.548	140	94
22-108-76E-EBSLWN	108	12	15.1	.593	168	113
22-120-76E-EBSLWN	120	12	16.0	.628	188	127
22-144-76E-EBSLWN	144	12	17.7	.698	231	155
22-168-76E-EBSLWN	168	12	17.9	.704	209	140
22-216-76E-EBSLWN	216	12	18.6	.734	235	158
22-240-76E-EBSLWN	240	12	19.7	.774	255	171
22-288-76E-EBSLWN	288	12	21.4	.844	317	213

6.0 FIBER CHARACTERISTICS

Fiber Type	Single mode*
Maximum Attenuation @ 1310/1550nm	0.40/0.30 dB/km
Cladding Diameter	125.0 ± 0.7 μm
Maximum Core/Clad Concentricity Error	0.5 μm
Maximum Cladding Non-circularity	0.7%
Primary Coating Diameter	245 ± 7 μm
Cabled Cutoff Wavelength	<1260nm
Mode Field Diameter	9.0 ± 0.4μm @1310nm 10.1 ± 0.5μm @1550nm
Temperature Dependence	≤0.05dB/km (-60°C to 85°C)
Zero Dispersion Slope	0.090ps/nm ² -km
Maximum PM D Link Design Value	0.06ps/√km
Group Refractive Index @ 1310/1550	1.467 / 1.468
Proof Test	100 kpsi

*According to ITU G.652.d



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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

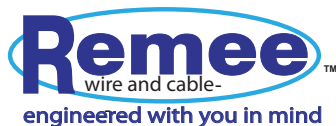
Installation, -40°C to +55°C

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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