1.0 SCOPE

This document establishes the specifications for a riser rated, indoor/outdoor, all dielectric, singlemode OS2, dry block fiber optic cable in a loose buffer tube design.

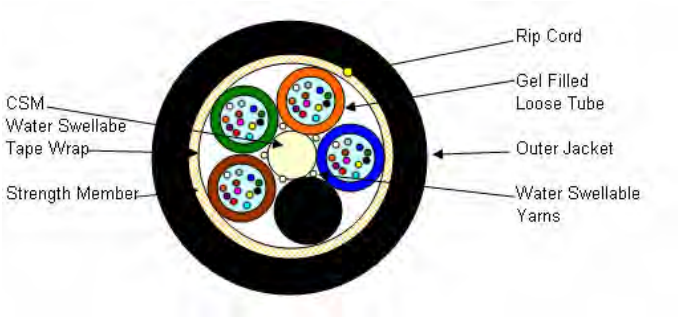
2.0 APPLICABLE DOCUMENTS

Reference Documents: TIA/EIA FOTP Standards 455
Color Coding of Fiber Optic Cables TIA/EIA-598
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

Cross Section	Components
	Central Member Water Swellable yarns Buffer Tube Filling Compound Buffer Tube Filler Rod Binder Threads Water Blocking Core Tape Strength Elements Ripcord Outer Jacket

5.0 OVERALL CABLE CONSTRUCTION

5.1 Buffer tube
High Modulus Polymeric material.
Dimension: 2.8 mm., nominal.
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 with water swellable yarns. An up-coat of polymer (if necessary per construction)

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 Riser Rated PVC. (or color per customer request)
A ripcord is applied under the outer sheath.

5.6 Cable Markings
Indent printed- REMFO 27 SERIES, FIBER OPTIC CABLE, # of fibers-SM, REMEE PRODUCTS CORP., TELEPHONE HANDSET SYMBOL, MM/YY (Month & Year of manufacture), OFNR C(ETL)US, Sequentially marked. Special print as required by customer.

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5.7 Nominal Cable Dimensions & Weights

Remee Products Part Number	No. of Fibers	No. of Fibers per Tube	Cable OD (mm)	Cable OD (in.)	Weight KG/KM	Weight LB/1000ft
27-006-76E-ABSFNF	6	6	11.3	.443	122	82
27-008-76E-ABSHNF	8	8	11.3	.443	122	82
27-012-76E-ABSFNF	12	6	11.3	.443	120	81
27-012-76E-ABSLNF	12	12	11.3	.443	122	82
27-016-76E-ABSHNF	16	8	11.3	.443	120	81
27-018-76E-ABSFNF	18	6	11.3	.443	118	80
27-024-76E-ABSFNF	24	6	11.3	.443	116	78
27-024-76E-ABSLNF	24	12	11.3	.443	120	81
27-030-76E-ABSFNF	30	6	11.3	.443	114	77
27-036-76E-ABSFNF	36	6	12.0	.473	133	89
27-036-76E-ABSLNF	36	12	11.3	.443	118	79
27-048-76E-ABSFNF	48	6	13.9	.548	173	116
27-048-76E-ABSLNF	48	12	11.3	.443	116	78
27-060-76E-ABSLNF	60	12	11.3	.443	114	77
27-072-76E-ABSLNF	72	12	12.0	.473	132	89
27-084-76E-ABSLNF	84	12	13.0	.513	151	101
27-096-76E-ABSLNF	96	12	13.9	.548	172	116
27-108-76E-ABSLNF	108	12	15.1	.593	204	137
27-120-76E-ABSLNF	120	12	16.0	.628	232	156
27-132-76E-ABSLNF	132	12	16.8	.663	260	175
27-144-76E-ABSLNF	144	12	17.7	.698	291	195
27-192-76E-ABSLNF	192	12	17.9	.704	251	169
27-216-76E-ABSLNF	216	12	18.6	.734	277	186
27-288-76E-ABSLNF	288	12	21.4	.844	364	245

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 PMD 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, ±90°: 25 Cycles (min.)
Temperature Rating:
- Operation, -40°C to +70°C
- Installation, -20°C to +55°C
- Storage, -40°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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