

1.0 SCOPE

This document establishes the specifications for an aerial self-supporting fiber optic cable, singlemode OS1, loose buffer tube, dry block, with steel messenger and a polyethylene jacket.

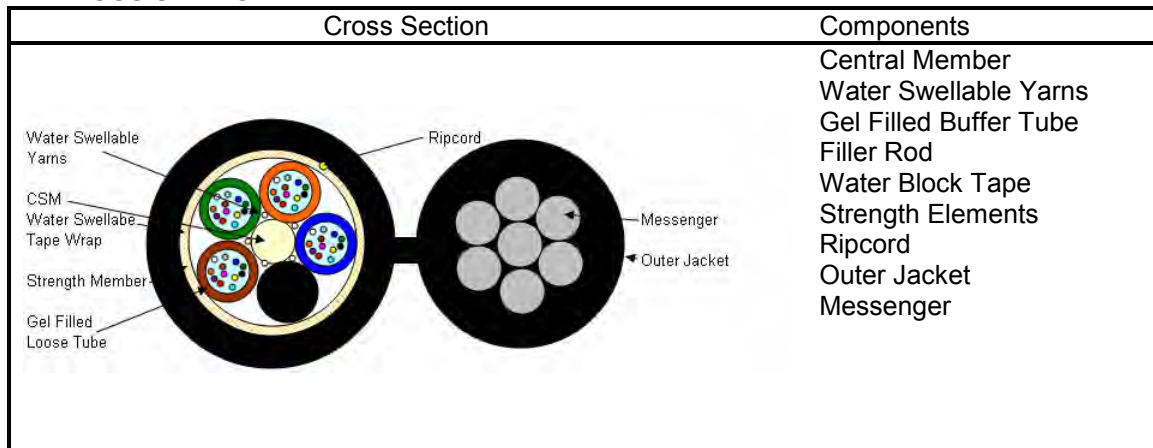
2.0 APPLICABLE DOCUMENTS

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 (The 4 fiber cable is 2.2mm, nominal).

Tube and fiber color code per TIA/EIA-598

Filling compound: A non-toxic and dermatological safe antioxidant hydrocarbon based gel.

5.2 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 Messenger

7 strand steel messenger with a nominal O.D. of .245in. (per ASTM A640-97)
 Breaking Strength: 6600lbs
 UV Resistant Black Polyethylene.
 Web: .080 x .100in.

5.7 Cable Markings

Indent printed- REMFO 88 SERIES, FIBER OPTIC CABLE, No. of Fibers-SM, REMEE PRODUCTS CORP., TELEPHONE HANDSET SYMBOL, MM/YY (Month & Year of Manufacture), Sequentially meter marked.

Special print as required by customer.

5.8 Nominal Cable Dimensions & Weights

Remees Products Part Number	No. of Fibers	No. of Fibers Per Tube	Cable OD (in.)	Cable OD (mm)	Weight LB/MFT	Weight KG/KM
88-004-76M-EBSDWN	4	4	0.396 x 0.861	10.1 x 21.9	196	291
88-006-76M-EBSFWN	6	6	0.453 x 0.918	11.5 x 23.3	212	316
88-008-76M-EBSHWN	8	8	0.453 x 0.918	11.5 x 23.3	212	316
88-012-76M-EBSFWN	12	6	0.453 x 0.918	11.5 x 23.3	212	316
88-012-76M-EBSLWN	12	12	0.453 x 0.918	11.5 x 23.3	212	316
88-016-76M-EBSHWN	16	8	0.453 x 0.918	11.5 x 23.3	212	316
88-018-76M-EBSFWN	18	6	0.453 x 0.918	11.5 x 23.3	212	316
88-024-76M-EBSFWN	24	6	0.453 x 0.918	11.5 x 23.3	212	316
88-024-76M-EBSLWN	24	12	0.453 x 0.918	11.5 x 23.3	212	316
88-030-76M-EBSFWN	30	6	0.453 x 0.918	11.5 x 23.3	212	316
88-036-76M-EBSFWN	36	6	0.483 x 0.948	12.3 x 24.0	225	334
88-036-76M-EBSLWN	36	12	0.453 x 0.918	11.5 x 23.3	212	316
88-048-76M-EBSLWN	48	12	0.453 x 0.918	11.5 x 23.3	212	316
88-060-76M-EBSLWN	60	12	0.453 x 0.918	11.5 x 23.3	212	316
88-072-76M-EBSLWN	72	12	0.483 x 0.948	12.3 x 24.0	225	334
88-084-76M-EBSLWN	84	12	0.523 x 0.988	13.3 x 25.1	242	360
88-096-76M-EBSLWN	96	12	0.558 x 1.023	14.2 x 26.0	245	364
88-108-76M-EBSLWN	108	12	0.603 x 1.078	15.3 x 27.4	266	396
88-120-76M-EBSLWN	120	12	0.638 x 1.113	16.2 x 28.3	279	416
88-132-76M-EBSLWN	132	12	0.673 x 1.148	17.1 x 29.2	294	437
88-144-76M-EBSLWN	144	12	0.708 X 1.183	18.0 X 30.0	311	462
88-192-76M-EBSLWN	192	12	0.704 X 1.179	17.9 X 29.9	292	434
88-216-76M-EBSLWN	216	12	0.734 X 1.209	18.6 X 30.7	308	458
88-288-76M-EBSLWN	288	12	0.844 x 1.319	21.4 x 33.5	364	542



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6.0 FIBER CHARACTERISTICS

6.1 Physical Parameters

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

*ITU G.652b

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, -40°C to +55°C
 Storage, -50°C to +70°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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