

**1.0 SCOPE**

This document establishes the specifications for a riser rated, indoor/outdoor, all dielectric, multimode OM1, dry block fiber optic cable in a loose buffer tube design.

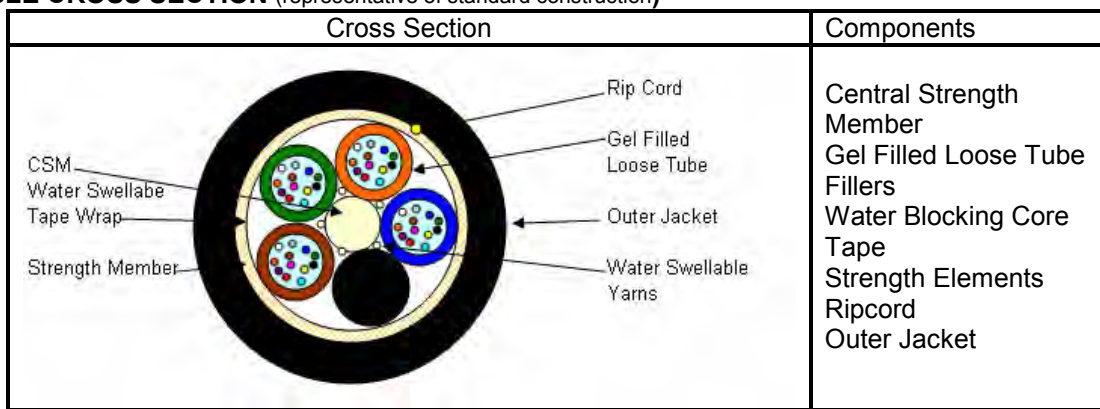
**2.0 APPLICABLE DOCUMENTS**

Reference Documents: TIA/EIA FOTP Standards 455  
Color Coding of Fiber Optic Cables TIA/EIA-598  
UL 1666  
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** (representative of standard construction)



**5.0 OVERALL CABLE CONSTRUCTION**

**5.1 Buffer tube**

High Modulus Polymeric material.  
Dimension: 2.8 mm, nominal with the exception of the 4 fiber cable which is 2.2mm, 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-62.5/125, REMEE PRODUCTS CORP., MM/YY (Month & Year of manufacture), OFNR C(ETL)US, Sequentially 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
27-004-22J-ABSDNF	4	4	9.8	.386	96	65
27-006-22J-ABSFNF	6	6	11.3	.443	122	82
27-008-22J-ABSHNF	8	8	11.3	.443	122	82
27-012-22J-ABSFNF	12	6	11.3	.443	120	81
27-012-22J-ABSLNF	12	12	11.3	.443	122	82
27-016-22J-ABSHNF	16	8	11.3	.443	120	81
27-018-22J-ABSFNF	18	6	11.3	.443	118	80
27-024-22J-ABSFNF	24	6	11.3	.443	116	78
27-024-22J-ABSLNF	24	12	11.3	.443	120	81
27-030-22J-ABSFNF	30	6	11.3	.443	114	77
27-036-22J-ABSFNF	36	6	12.0	.473	133	89
27-036-22J-ABSLNF	36	12	11.3	.443	118	79
27-048-22J-ABSFNF	48	6	13.9	.548	173	116
27-048-22J-ABSLNF	48	12	11.3	.443	116	78
27-060-22J-ABSLNF	60	12	11.3	.443	114	77
27-072-22J-ABSLNF	72	12	12.0	.473	132	89
27-084-22J-ABSLNF	84	12	13.0	.513	151	101
27-096-22J-ABSLNF	96	12	13.9	.548	172	116
27-108-22J-ABSLNF	108	12	15.1	.593	204	137
27-120-22J-ABSLNF	120	12	16.0	.628	232	156
27-132-22J-ABSLNF	132	12	16.8	.663	260	175
27-144-22J-ABSLNF	144	12	17.7	.698	291	195
27-192-22J-ABSLNF	192	12	17.9	.704	251	169
27-216-22J-ABSLNF	216	12	18.6	.734	277	186
27-288-22J-ABSLNF	288	12	21.4	.844	364	245

### 6.0 FIBER CHARACTERISTICS

Fiber Type	Multimode Graded Index
Maximum Attenuation @ 850/1300nm	3.2 /1.0 dB/km
Minimum Bandwidth @850/1300nm	200/600MHz-km
Core Diameter, nominal	62.5 ± 3 µm
Cladding Diameter	125.0 ± 1.0 µm
Primary Coating Diameter	245 ± 10 µm
Cladding Non-circularity	<2%
Core/Clad Offset	3 µm
Zero Dispersion Wavelength	1320-1365nm
Numerical Aperture	0.275 ± .015
Group Refractive Index @ 850/1300nm	1.496/1.491
Proof Test	100 kpsi

\*Guaranteed Gigabit Ethernet Distance of 300/550mtr per IEEE802.3z.



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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, -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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