

## 1.0 SCOPE

This document establishes the specifications for a singlemode, single 3mm central tube design with an armored polyethylene jacket.

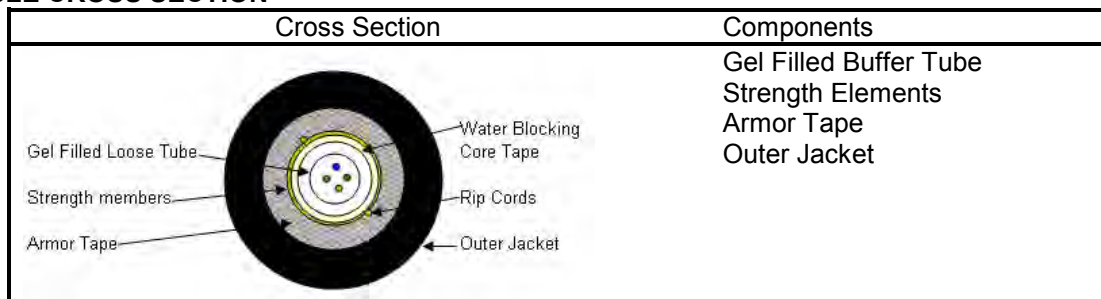
## 2.0 APPLICABLE DOCUMENTS

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

## 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: 3.0 mm., nominal.

Tube color: white

Fiber color code: per TIA/EIA-598

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

### 5.2 Cable Core:

The cable core consists of the buffer tube with a moisture resistant water-blocking tape applied over the tube to prevent water ingress and migration with a nominal of a 25% overlap.

### 5.3 Cable strength

Circumferential strength members are placed over the cable core and under the steel tape.

### 5.4 Steel Armor Tape

Tape is flexible steel with plastic coating for bonding to sheath. The armor of each length of cable shall be electrically continuous with no more than one joint or splice allowed per kilometer of cable.

The breaking strength of any section of an armor tape containing a factory splice joint, shall not be less than 80% of the breaking strength of an adjacent section of the armor of equal length without a joint.

A ripcord is applied under the armor tape.

### 5.5 Outer Sheath

MD Black Polyethylene (UV Resistant).

Wall thickness (nominal): 1.52mm.

### 5.6 CABLE MARKINGS

Indent printed- REMFO 54 SERIES, FIBER OPTIC CABLE, No. of Fibers-SM, REMEE PRODUCTS CORP., TELEPHONE HANDSET SYMBOL, MM/YY (Month & Year of Manufacture), Sequentially meter marked.

5.7 Nominal Cable Dimensions & Weights

Remeo Products Part Number	No. of Fibers	Cable OD (in.)	Cable OD (mm)	Weight LB/MFT	Weight KG/KM
54-002-76M-EBCBNN	2	.346	8.8	51	76
54-004-76M-EBCDNN	4	.346	8.8	51	76
54-006-76M-EBCFNN	6	.346	8.8	51	76
54-008-76M-EBCHNN	8	.346	8.8	51	76
54-010-76M-EBCJNN	10	.346	8.8	51	76
54-012-76M-EBCLNN	12	.346	8.8	51	76

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 <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

\*According to ITU G.652b



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## 7.0 MECHANICAL & ENVIRONMENTAL PERFORMANCE

Maximum Tensile Load for:

Installation: 1335N / 300lbf

Long Term: 600N / 135lbf

Minimum bending radius:

Loaded: 20 x diameter

Unloaded: 10 x diameter

Crush Resistance: 440N/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

## 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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