

# TIGHT BUFFER OFNR CABLES PRODUCT SPECIFICATION 77XXX22EGBSXXF

This document establishes the specification requirements for a indoor/outdoor distribution fiber optic cable. This cable construction consists of multimode fibers in a distribution tight-buffered design with a riser rated PVC jacket. It contains test values for all-important mechanical, optical, and environmental parameters and as such, is the basis for all-incoming inspection and acceptance.

## 1.0 OVERALL CABLE CONSTRUCTION

1.1 Tight Buffered Fiber

Dimension: 900µm, nominal.

Tight buffered fiber color code: 1-blue, 2-orange, 3-green, 4-brown, 5-slate, 6-white, 7-red, 8-black, 9-yellow, 10-violet, 11-rose, and 12-aqua.

- 1.2 Sub-unit consists of water swellable aramid yarns that are pulled in with the tight-buffered fibers under a sub-unit jacket. The subunits are colored per TIA/EIA-598 or orange and are numbered for identification.
- 1.3 Cable strength Member

Fiberglass Epoxy Rod (dielectric)

An up coat of PVC (if necessary per construction for symmetry)

1.4 Cable Core

Sub-units and fillers (if needed) are stranded around the CSM, using reverse oscillation. Binder yarns are applied over the cable core.

1.5 Outer Sheath

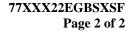
UV Resistant Black riser rated PVC jacket (or color per customer request)

1.6 Cable Markings

Indent printed: CCT GROUP77, FIBER OPTIC CABLE, # of fibers-62.5/125, MM/YY (month and year of manufacture), OFNP C(ETL)US, sequentially meter marked. Special print as required by customer.

#### 1.7 Nominal Cable Dimensions & Weights

CCT		Cable	Cable	Weight	Weight
Part Number	No. of Fibers	OD (mm)	OD (in.)	KG/KM	LB/1000ft
7701822EGBSFXF	18	13.7	0.540	142	96
7702422EGBSFXF	24	13.7	0.540	142	96
7703622EGBSFXF	36	16.8	0.660	221	148
7704822EGBSLXF	48	16.0	0.628	198	133
7706022EGBSLXF	60	17.7	0.696	233	157





## **2.0 FIBER CHARACTERISTICS - Physical Parameters (nominal)**

Fiber Type Multimode Graded Index

Cladding Non-circularity  $$<\!2\%$$  Core/Clad Offset  $$3~\mu m$$ 

Zero Dispersion Wavelength 1320-1365nm Numerical Aperture 0.275  $\pm$  .015 Group Refractive Index @ 850/1300nm 1.496/1.491 Proof Test 100 kpsi

\*Measured attenuations on shipping reels will not exceed the nominal values by .75dB/km.

#### 3.0 MECHANICAL & ENVIRONMENTAL PERFORMANCE

Maximum Tensile Load for: Impact Resistance: 25 Impacts (min.)

Installation: 2700N / 607lbf Flexing, ±90°: 25 Cycles (min.)

Long Term: 890N / 200lbf Temperature Rating:

Minimum bending radius: Operation:  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ 

Loaded: 20 x diameter Installation: 0°C to +75°C Unloaded: 10 x diameter Storage: -55°C to +85°C

Crush Resistance: 220N/cm

## 4.0 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.

### 5.0 APPLICABLE DOCUMENTS

Reference Documents: TIA/EIA FOTP Standards 455

Color Coding of Fiber Optic Cables TIA/EIA-598

UL 1666 GR-409-CORE