



## TIGHT BUFFER OFNR CABLES PRODUCT SPECIFICATION 77XXX12SABNOOF

This document establishes the specification requirements for a distribution indoor/outdoor 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 Cable strength

Aramid yarns with water swellable characteristics are pulled in with the tight-buffered fibers under the outer jacket.

#### 1.3 Outer Sheath

Pressure extruded black UV resistant riser rated PVC jacket (or color per customer request)

#### 1.4 Cable Markings

Indent printed: CCT GROUP77, FIBER OPTIC CABLE, # of fibers-50/125, MM/YY (month and year of manufacture), OFNR C(ETL)US, sequentially meter marked. Special print as required by customer.

#### 1.5 Nominal Cable Dimensions & Weights

CCT Part Number	No. of Fibers	Cable OD (mm)	Cable OD (in.)	Weight KG/KM	Weight LB/1000ft
7700212SABNOOF	2	4.6	.180	19	13
7700412SABNOOF	4	5.0	.195	22	15
7700612SABNOOF	6	5.3	.210	27	18
7700812SABNOOF	8	5.7	.225	31	21
7701212SABNOOF	12	6.6	.260	40	27



## **2.0 FIBER CHARACTERISTICS**

### **2.1 Physical Parameters (nominal)**

Fiber Type	Multimode*
Maximum Attenuation @ 850/1300nm**	3.0 /1.0 dB/km
LED Performance (Overfilled Launch Bandwidth)	1500/500MHz-km@850/1300
Laser EMB Performance	2000/500MHz-km@850/1300
Core Diameter, nominal	50 ± 3.0 µm
Cladding Diameter	125.0 ± 2.0 µm
Primary Coating Diameter	245 ± 5 µm
Cladding Non-circularity	<2%
Core-Clad Concentricity	≤3.0 µm
Zero Dispersion Wavelength	1300-1320nm
Maximum Zero Dispersion Slope	0.101 ps/nm <sup>2</sup> -km
Numerical Aperture	0.20 ± .015
Group Refractive Index @ 850/1300nm	1.481/1.476
Proof Test	100 kpsi

*\*Guaranteed Gigabit Ethernet Distance of 300mtr at 850nm for 10 Gb/s per IEEE802.3ae and 1000mtr at 850nm for 1 Gb/s per IEEE802.3z.*

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

## **3.0 MECHANICAL & ENVIRONMENTAL PERFORMANCE**

Maximum Tensile Load for:

Installation: 2&4-fiber 1405N/315lbf, 6&8-fiber 1610N/362lbf

12-fiber 2700N/600lbf

Long Term: 2&4-fiber 455N/102lbf, 6&8-fiber 535N/120lbf

12-fiber 600N/135lbf

Minimum bending radius:

Loaded: 20 x diameter

Unloaded: 10 x diameter

Impact Resistance: 25 Impacts  
(min.)

Flexing, ±90°: 25 Cycles (min.)

Temperature rating:

Operation: -40°C to +85°C

Installation: 0°C to +75°C

Storage: -55°C to +85°C

Crush Resistance: 100N/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