

TIGHT BUFFER OFNR CABLES PRODUCT SPECIFICATION 77XXX12AABNOOF

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

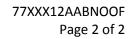
Pressure extruded black UV resistant riser rated PVC jacket (or color per customer request)

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





2.0 FIBER CHARACTERISTICS

2.1 Physical Parameters (nominal)

Fiber Type Multimode Graded Index

Attenuation @ 850/1300nm* ≤3.0 /1.0 dB/km
Bandwidth @850/1300nm ≥400/400MHz-km

Core Diameter, nominal $50 \pm 3 \mu m$ Cladding Diameter $125.0 \pm 2.0 \mu m$ Primary Coating Diameter $245 \pm 10 \mu m$

Cladding Non-circularity <2% Core-Clad Concentricity ≤3 μm

Zero Dispersion Wavelength 1297-1316nm Zero Dispersion Slope \leq 0.101 ps/nm²-km

Numerical Aperture $0.20 \pm .015$ Group Refractive Index @ 850/1300nm 1.490/1.486 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:

Installation: 2&4-fiber 1405N/315lbf, 6&8-fiber 1610N/362lbf Impact Resistance: 25 Impacts

(min.)

12-fiber 2700N/600lbf Flexing, ±90°: 25 Cycles (min.)

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

12-fiber 600N/135lbf Operation: -40° C to $+85^{\circ}$ C Minimum bending radius: Installation: 0° C to $+75^{\circ}$ C Loaded: 20 x diameter Storage: -55° C to $+85^{\circ}$ C

Loaded: 20 x diameter Storage: -55 °C to +8.

Unloaded: 10 x diameter 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