



TIGHT BUFFER OFNR CABLES PRODUCT SPECIFICATION 77XXX12DAANOOF

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



2.0 FIBER CHARACTERISTICS - Physical Parameters (nominal)

Fiber Type	Multimode*
Maximum Attenuation @ 850/1300nm**	3.0 /1.0 dB/km
Minimum Bandwidth @850/1300nm [Overfilled Launch, LED based sources]	750/500MHz-km
Transmission Link Lengths at 850nm & 1300nm(LX4) for 10Gb/s*	150/150mtrs
Core Diameter, nominal	50 ± 2.5 μm
Cladding Diameter	125.0 ± 1.0 μm
Primary Coating Diameter	245 ± 10 μm
Cladding Non-circularity	<1%
Core-Clad Concentricity	≤1.5 μm
Zero Dispersion Wavelength	1295-1320nm
Numerical Aperture	0.20 ± .015
Group Refractive Index @ 850/1300nm	1.483/1.478
Proof Test	100 kpsi
<i>*at 850nm operating wavelength with transmitters meeting encircled flux of ≤30% at radius 4.5μm and ≥86% at radius 19.0μm.</i>	
<i>**Measured attenuations on shipping reels will not exceed the nominal values by .75dB/km.</i>	

3.0 MECHANICAL & ENVIRONMENTAL PERFORMANCE

Maximum Tensile Load for:	
Installation: 2&4-fiber 1405N/315lbf, 6&8-fiber 1610N/362lbf (min.)	Impact Resistance: 25 Impacts
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°C
Minimum bending radius:	Installation: 0°C to +75°C
Loaded: 20 x diameter	Storage: -55°C to +85°C
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