



TIGHT BUFFER OFNR CABLES PRODUCT SPECIFICATION 77XXX74EABNOOF

This document establishes the specification requirements for a distribution indoor/outdoor fiber optic cable. This cable construction consists of single mode 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: 900 μ m, 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-SM, TELEPHONE HANDSET SYMBOL 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
7700274EABNOOF	2	4.6	.180	19	13
7700474EABNOOF	4	5.0	.195	22	15
7700674EABNOOF	6	5.3	.210	27	18
7700874EABNOOF	8	5.7	.225	31	21
7701274EABNOOF	12	6.6	.260	40	27



2.0 FIBER CHARACTERISTICS - Physical Parameters (nominal)

Fiber Type	Single mode (SMF-28e+)*
Maximum Attenuation @ 1310/1550nm***	0.35/0.25 dB/km
Core Diameter (Typical)	8.2 μm
Cladding Diameter	125.0 ± 0.7 μm
Maximum Core/Clad Concentricity Error	0.5 μm
Maximum Cladding Non-circularity	0.7%
Primary Coating Diameter	245 ± 5 μm
Cabled Cutoff Wavelength	<1260nm
Mode Field Diameter	9.2 ± 0.4μm @1310nm 10.4 ± 0.5μm @1550nm
Temperature Dependence	≤0.05dB/km (-60°C to 85°C)
Zero Dispersion Slope	≤0.092ps/nm ² -km
Zero Dispersion Wavelength (Typical)	1317nm
Maximum PMD Link Design Value	0.06ps/√km**
Group Refractive Index @ 1310/1550	1.467 / 1.4677
Proof Test	100 kpsi

**According to ITU G.652c,d*

***Complies with IEC 60794-3: 2001, Section 5.5, Method 1, September 2001.*

****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