



TIGHT BUFFER PLENUM FIBER OPTIC CABLES PRODUCT SPECIFICATION 99XXX12CRBNOOP

This document establishes the specification requirements for an indoor/outdoor multimode distribution fiber optic cable. This cable construction consists of a distribution tight-buffered design with a plenum rated 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

Water swellable aramid yarns are pulled in with the tight-buffered fibers under the outer jacket.

1.3 Outer Sheath

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

1.4 Cable Markings

Indent printed: CCT GROUP99, FIBER OPTIC CABLE, # of fibers-50/125, MM/YY (month and year of manufacture), OFNP 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
9900212CRBNOOP	2	4.3	.170	18	12
9900412CRBNOOP	4	4.4	.185	21	14
9900612CRBNOOP	6	4.6	.200	27	18
9900812CRBNOOP	8	5.0	.215	31	20
9901212CRBNOOP	12	5.8	.250	39	26



2.0 FIBER CHARACTERISTICS

2.1 Physical Parameters (nominal)

Fiber Type	Multimode*
Maximum Attenuation @ 850/1300nm**	3.0 /1.0 dB/km
Minimum Bandwidth @850/1300nm	500/500MHz-km
Core Diameter, nominal	50 ± 2.5 µm
Cladding Diameter	125.0 ± 2.0 µm
Primary Coating Diameter	245 ± 10 µm
Cladding Non-circularity	<1%
Core-Clad Concentricity	≤1.5 µm
Zero Dispersion Wavelength	1300-1320nm
Numerical Aperture	0.20 ± .015
Group Refractive Index @ 850/1300nm	1.483/1.478
Proof Test	100 kpsi

*Guaranteed Gigabit Ethernet Distance of 600/600mtr at 850/1300nm 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: 4-fiber 1405N/315lbf, 6&8-fiber 1610N/362lbf
12-fiber 2700N/600lbf

Long Term: 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.)

Crush Resistance: 100N/cm

Temperature rating:

Operation: -20°C to +85°C

Installation: 0°C to +75°C

Storage: -40°C to +85°C

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 910
	GR-409-CORE