



## TIGHT BUFFER PLENUM FIBER OPTIC CABLES PRODUCT SPECIFICATION 99XXX12CRZNONP

This document establishes the specification requirements for a distribution fiber optic cable. This cable construction consists of multimode fibers in 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: 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 are pulled in with the tight-buffered fibers under the outer jacket.

#### 1.3 Outer Sheath

Orange 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 Part Number	No. of Fibers	Cable OD (mm)	Cable OD (in.)	Weight KG/KM	Weight LB/1000ft
9900212CRZNONP	2	4.3	.170	18	12
9900412CRZNONP	4	4.7	.185	21	14
9900612CRZNONP	6	5.1	.200	27	18
9900812CRZNONP	8	5.3	.210	30	20
9901212CRZNONP	12	6.4	.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: 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 -20°C to +85°C

Installation 0°C to +75°C

Storage -40°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 910
	GR-409-CORE