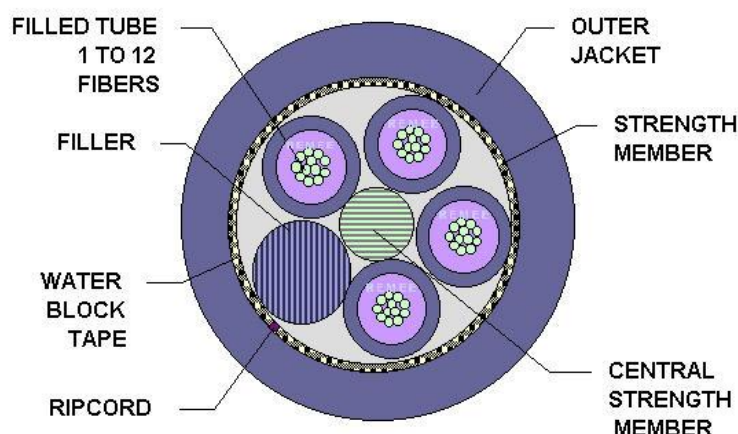




## OSP LOOSE TUBE INDOOR/OUTDOOR FIBER OPTIC CABLE PRODUCT SPECIFICATION 47XXX12CABSXNF

This document establishes the specifications for a riser rated, indoor/outdoor, all dielectric, multimode, dry block fiber optic cable in a loose buffer tube design. 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 CABLE CROSS SECTION** (representative of standard construction)



### **2.0 OVERALL CABLE CONSTRUCTION**

#### **2.1 Buffer tube**

High Modulus Polymeric material

Dimension: 2.8 mm, nominal with the exception of the 4 fiber cable which is 2.2mm, nominal

Tube and fiber color code per EIA/TIA-598 or as specified by customer.

Filling compound: A non-toxic and dermatological safe antioxidant hydrocarbon based gel.

#### **2.2 Dielectric central strength member** with water swellable yarns. An up-coat of polymer (if necessary per construction)



2.3 Cable Core

The cable elements are stranded around the CSM, using reverse oscillation.

Moisture Resistance: A water blocking tape is applied over the cable core to prevent water ingress and migration with a nominal of 25% overlap.

Non-wicking binder yarns are applied over the core tape.

2.4 Cable strength

Circumferential strength members are placed over the cable core and under the outer sheath.

2.5 Outer Sheath

UV Resistant Black Riser Rated PVC. (or color per customer request)

A ripcord is applied under the outer sheath.

2.6 Cable Markings

Indent printed: CCT GROUP47, 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.

2.7 Nominal Cable Dimensions & Weights

CCT Part Number	No. of Fibers	No. of Fibers per Tube	Cable OD (mm)	Cable OD (in.)	Weight KG/KM	Weight LB/1000ft
4700412CABSDNF	4	4	9.8	.386	96	65
4700612CABSFNF	6	6	11.3	.443	122	82
4700812CABSHNF	8	8	11.3	.443	122	82
4701212CABSFNF	12	6	11.3	.443	120	81
4701212CABSLNF	12	12	11.3	.443	122	82
4701612CABSHNF	16	8	11.3	.443	120	81
4701812CABSFNF	18	6	11.3	.443	118	80
4702412CABSFNF	24	6	11.3	.443	116	78
4702412CABSLNF	24	12	11.3	.443	120	81
4703012CABSFNF	30	6	11.3	.443	114	77
4703612CABSFNF	36	6	12.0	.473	133	89
4703612CABSLNF	36	12	11.3	.443	118	79
4704812CABSFNF	48	6	13.9	.548	173	116
4704812CABSLNF	48	12	11.3	.443	116	78
4706012CABSLNF	60	12	11.3	.443	114	77
4707212CABSLNF	72	12	12.0	.473	132	89
4708412CABSLNF	84	12	13.0	.513	151	101
4709612CABSLNF	96	12	13.9	.548	172	116
4710812CABSLNF	108	12	15.1	.593	204	137
4712012CABSLNF	120	12	16.0	.628	232	156
4713212CABSLNF	132	12	16.8	.663	260	175
4714412CABSLNF	144	12	17.7	.698	291	195
4719212CABSLNF	192	12	17.9	.704	251	169
4721612CABSLNF	216	12	18.6	.734	277	186
4728812CABSLNF	288	12	21.4	.844	364	245



### **3.0 FIBER CHARACTERISTICS**

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.*

### **4.0 MECHANICAL & ENVIRONMENTAL PERFORMANCE**

Maximum Tensile Load for: Installation: 2700N / 607lbf Long Term: 890N / 200lbf	Impact Resistance: 25 Impacts (min.) Flexing, ±90°: 25 Cycles (min.) Temperature Rating:
Minimum bending radius: Loaded: 20 x diameter Unloaded: 10 x diameter	Operation: -40°C to +70°C Installation: -20°C to +55°C Storage: -40°C to +70°C
Crush Resistance: 220N/cm	Twist Test: 25 Cycles (min.)

### **5.0 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.

### **6.0 APPLICABLE DOCUMENTS**

Reference Documents:	TIA/EIA FOTP Standards 455 Color Coding of Fiber Optic Cables TIA/EIA-598 UL 1666 GR-20-CORE
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