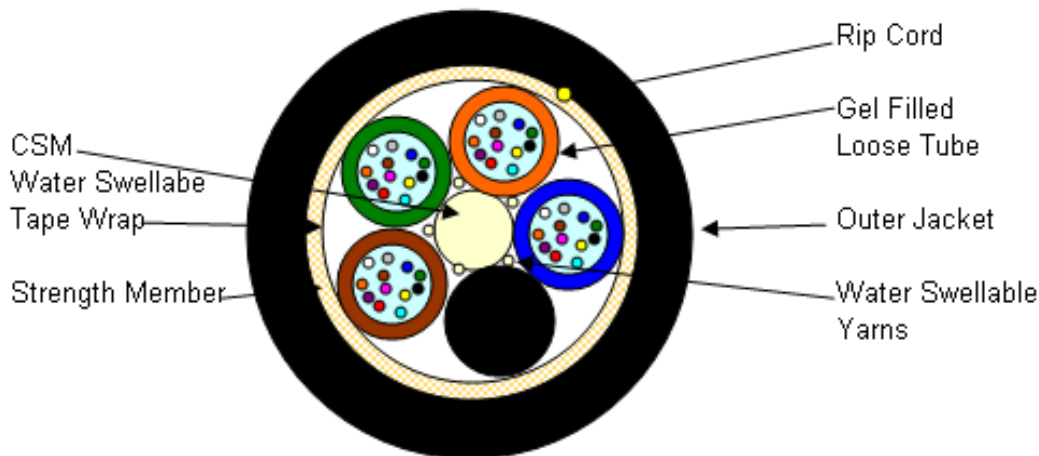




OSP LOOSE TUBE INDOOR/OUTDOOR FIBER OPTIC CABLE PRODUCT SPECIFICATION 47XXX12SABSXNF

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 suitable for duct or aerial lashed. 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, 10GIG OM3, 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
4700412SABSDNF	4	4	9.8	.386	96	65
4700612SABSFNF	6	6	11.3	.443	122	82
4700812SABSHNF	8	8	11.3	.443	122	82
4701212SABSFNF	12	6	11.3	.443	120	81
4701212SABSLNF	12	12	11.3	.443	122	82
4701612SABSHNF	16	8	11.3	.443	120	81
4701812SABSFNF	18	6	11.3	.443	118	80
4702412SABSFNF	24	6	11.3	.443	116	78
4702412SABSLNF	24	12	11.3	.443	120	81
4703012SABSFNF	30	6	11.3	.443	114	77
4703612SABSFNF	36	6	12.0	.473	133	89
4703612SABSLNF	36	12	11.3	.443	118	79
4704812SABSFNF	48	6	13.9	.548	173	116
4704812SABSLNF	48	12	11.3	.443	116	78
4706012SABSLNF	60	12	11.3	.443	114	77
4707212SABSLNF	72	12	12.0	.473	132	89
4708412SABSLNF	84	12	13.0	.513	151	101
4709612SABSLNF	96	12	13.9	.548	172	116
4710812SABSLNF	108	12	15.1	.593	204	137
4712012SABSLNF	120	12	16.0	.628	232	156
4713212SABSLNF	132	12	16.8	.663	260	175
4714412SABSLNF	144	12	17.7	.698	291	195
4719212SABSLNF	192	12	17.9	.704	251	169
4721612SABSLNF	216	12	18.6	.734	277	186
4728812SABSLNF	288	12	21.4	.844	364	245



3.0 FIBER CHARACTERISTICS

Fiber Type	Multimode*
Maximum Attenuation @ 850/1300nm	3.0 /1.0 dB/km
LED Performance (Overfilled Launch Bandwidth)	1500/500MHz-km@850/1300
Laser EMB Performance	2000/500MHz-km@850/1300
Core Diameter, nominal	50 ± 3.0 µm
Cladding Diameter	125.0 ± 2.0 µm
Primary Coating Diameter	245 ± 5 µm
Cladding Non-circularity	<2%
Core-Clad Concentricity	≤3.0 µm
Zero Dispersion Wavelength	1300-1320nm
Maximum Zero Dispersion Slope	0.101 ps/nm ² -km
Numerical Aperture	0.20 ± .015
Group Refractive Index @ 850/1300nm	1.481/1.476
Proof Test	100 kpsi
<i>*Guaranteed Gigabit Ethernet Distance of 300mtr at 850nm for 10 Gb/s per IEEE802.3ae and 1000mtr at 850nm for 1 Gb/s per IEEE802.3z.</i>	

4.0 MECHANICAL & ENVIRONMENTAL PERFORMANCE

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