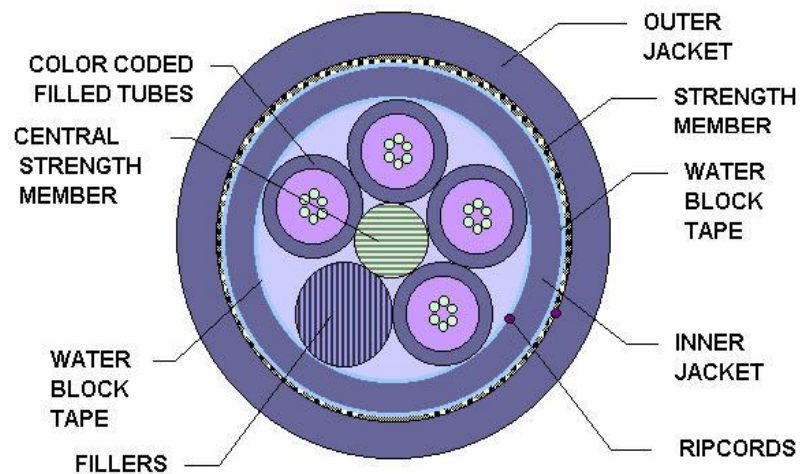


OSP LOOSE TUBE HEAVY DUTY FIBER OPTIC CABLE PRODUCT SPECIFICATION 45XXX22JMBSXWN

This document establishes the specifications for an outdoor, heavy duty, all-dielectric, 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 *(representation of standard construction)*



2.0 OVERALL CABLE CONSTRUCTION

2.1 Buffer tube

High Modulus Polymeric material

Dimension: 2.8 mm for ≥ 6 fiber cable, 2.23mm for 4 fiber cables and 1.98mm for 2 fiber cables, 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

Epoxy fiberglass rod with 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 Inner Sheath

UV Resistant MD Black Polyethylene. (or color per customer request)

A ripcord is applied under the sheath.

2.5 Moisture Resistance

A water blocking tape is applied over the inner sheath to prevent water ingress and migration with a nominal of 25% overlap.

2.6 Cable strength

Circumferential strength members are placed over the water blocking tape and under the outer sheath.

2.7 Outer Sheath

UV Resistant MD Black Polyethylene (or color per customer request).

A ripcord is applied under the outer sheath.

2.8 Cable Markings

Indent printed: CCT GROUP45, FIBER OPTIC CABLE, # of fibers-62.5/125, MM/YY (month and year of manufacture), sequentially meter marked. Special print as required by customer.

2.9 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
4500222JMBSBWN	2	2	11.9	.470	102	69
4500422JMBSBWN	4	4	11.6	.456	101	68
4500622JMBSBWN	6	6	13.6	.534	128	86
4500822JMBSBWN	8	8	13.6	.534	128	86
4501222JMBSBWN	12	6	13.6	.534	129	87
4501222JMBSLWN	12	12	13.6	.534	128	86
4501622JMBSBWN	16	8	13.6	.534	129	86
4501822JMBSBWN	18	6	13.6	.534	129	87
4502422JMBSBWN	24	6	13.6	.534	130	88
4502422JMBSLWN	24	12	13.6	.534	129	87
4503022JMBSBWN	30	6	13.6	.534	130	88
4503622JMBSBWN	36	6	14.3	.564	150	101
4503622JMBSLWN	36	12	13.6	.534	129	87
4504822JMBSLWN	48	12	13.6	.534	130	88
4506022JMBSLWN	60	12	13.6	.534	131	88
4507222JMBSLWN	72	12	14.3	.564	146	98
4508422JMBSLWN	84	12	15.3	.604	169	114
4509622JMBSLWN	96	12	16.2	.639	185	124
4510822JMBSLWN	108	12	17.9	.704	226	152
4512022JMBSLWN	120	12	18.5	.729	241	162
4514422JMBSLWN	144	12	20.3	.799	292	196
4521622JMBSLWN	216	12	21.0	.825	264	178
4528822JMBSLWN	288	12	23.7	.935	372	250



3.0 FIBER CHARACTERISTICS

Physical Parameters

Fiber Type	Multimode Graded Index
Maximum Attenuation @ 850/1300nm	3.2 /1.0 dB/km
Minimum Bandwidth @850/1300nm	200/600MHz-km
Core Diameter, nominal	62.5 ± 3 µm
Cladding Diameter	125.0 ± 1.0 µm
Primary Coating Diameter	245 ± 10 µm
Cladding Non-circularity	<2%
Core/Clad Offset	3 µm
Zero Dispersion Wavelength	1320-1365nm
Numerical Aperture	0.275 ± .015
Group Refractive Index @ 850/1300nm	1.496/1.491
Proof Test	100 kpsi

**Guaranteed Gigabit Ethernet Distance of 300/550mtr per IEEE802.3z.*

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: -40°C to +55°C
Unloaded: 10 x diameter	Storage: -50°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
	RUS 1755.900
	GR-20-CORE