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# General Description

Doc. No OPX-49xx-200-SM

## 1. Application

This specification covers the general requirements of all dielectric self-supporting cable for aerial application.

## 2. Cable Description

Colour coded fibres in jelly filled loose tubes. The tubes and fillers (if necessary) are SZ-stranded and layered up around a dielectric central strength member, dry blocked, taped, and sheathed with inner and outer jacket. Peripheral strength elements are layered between the two jackets.

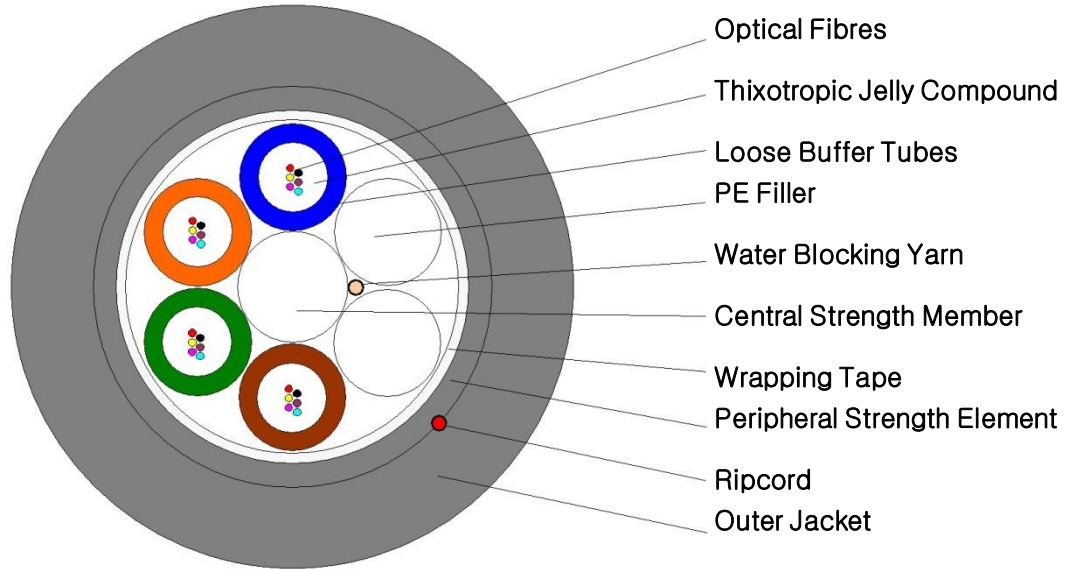
Parameter	Specification
Attenuation	
@ 1310 nm	≤ 0.36 dB/km
@ 1383 nm	≤ 0.36 dB/km (in accordance with IEC60793-2-50)
@ 1550 nm	≤ 0.22 dB/km
@ 1625 nm	≤ 0.25 dB/km
PMD	≤ 0.2 (ps/nm <sup>2</sup> . Km) <sup>1/2</sup>
Cable cut-off wavelength	≤ 1260nm
Zero-dispersion wavelength	1300 ~ 1324 nm
Zero-dispersion slope	≤ 0.092 ps/(nm <sup>2</sup> /km)
Chromatic dispersion	
@ 1285 ~ 1330 nm	≤ 3.5 ps/nm/km
@ 1550 nm	≤ 18.0 ps/nm/km
Mode field diameter	9.2 ± 0.5um @ 1310nm 10.4 ± 0.8 um @ 1550nm
Core/Clad concentricity error	≤ 0.6 um
Cladding diameter	125.0 ± 1.0 um
Cladding non-circularity	≤ 1.0 %
Primary Coating diameter	240 ± 15um
Refractive index	
	1.4690 @ 1310 nm
	1.4695 @ 1550 nm
Attenuation vs Bending (60mm x 100 turns)	≤ 0.1 at 1550nm
Proof test level	≥ 0.69 Gpa

ITEMS	SPECIFICATION	
	S-100	S-200
Product Categories	S-100	S-200
Number of Fibres	Up to 288	
Loose buffer	12	
Filling compound in tubes	Thixotropic Jelly Compound	
Loose tube buffer	PBT (Polybutylene Terephthalate)	
Filler	Polyethylene rod	
Central Strength Member	FRP (Fibre Reinforced Plastic)	
Water blocking material	Water blocking Yarn	
Core wrapping material	Water blocking Tape	
Rip cord	N.A	One ripcord
Black PE / Inner Jacket	N.A	1.0mm
Peripheral Strength element	Aramid Yarns	
Ripcord	One ripcord	
Black PE / Outer jacket		
Thickness	1.8mm	1.5mm

Diameter, Composition and Weight					
Cable Type	Fibre Counts	Nominal cable Diameter (mm)	Approx. cable weight (kg/km)	Minimum Bending Radius	
				Under load	No Load
S-100	2 – 36	11.3	96	226	113
	38 – 72	11.3	98	226	113
	74 – 96	12.8	126	256	128
	98 – 120	14.3	155	186	143
S-200	2 – 36	13.0	127	260	130
	38 – 72	13.3	133	266	133
	74 – 96	14.7	165	294	147
	98 – 120	16.1	197	322	161

## Cross-sectional drawing

OPX-49xx-S100-SM  
(xx denotes fibre count)



OPX-49xx-S200-SM  
(xx denotes fibre count)

