Composite Cables



3x2.5 Power Cable + 4C Fiber Optic Cable SWA LSZH Sheathed Composite Cable

Construction:



3x2.5mm² Power Cable

Conductor	50/0.25mm Stranded bare copper wire		
Insulation	XLPE. Thickness is 0.7mm. Outer diameter 3.5mm		
Insulation Color	Blue, Brown and Green/Yellow		

4C Optic Fiber Cable, G652D (around central member)

No of fibers in loose tube	4 fibers
Loose tube	Outer diameter: 3.5mm (PE or PVC Sheathwould be used over the loose tube if necessary)

Element Assembly

Central Strength Member Steel wire central strength member with PE coating if necessa		
Strength member Aramid yarn helically is applied over cable core.		
Inner Jacket LSZH, thickness is 1.0mm		
Armor	Galvanised steel wire armour, Outer diameter: 0.9mm	



Sheath	LSZH, thickness is 1.6mm, norminal outer diameter 17.0mm			
Sheath Color	Black			

Optical Characteristics

4C Optic Fiber Cable, G652D (around central member)

Parameter		Standard Single Mode Fiber per ITU-T G.652D	Non-zero Dispersion Shifted fiber per ITU-T G.655	Non-zero Dispersion Shifted fiber per ITU-T G.656	Units
Fiber Code		9	8	7	
Attenuation,	@1310nm	≤0.35	N/A	N/A	dB/km
Loose Tube	@1550nm	≤0.22	≤0.22	≤0.22	dB/km
Cables	@1625nm	≤0.25	≤0.26	≤0.26	dB/km
Attenuation, Tight Buffer	@1310nm	≤0.38	N/A		dB/km
or Semi-Tight Cables	@1550nm	≤0.28	N/A		dB/km
Chromatic Dispersion	between 1260 and 1360nm (O Band)	≤3.5	N/A	N/A	ps/(nm*km)
	between 1460 and 1530nm (S Band)	N/A	N/A	2.0-7.0	ps/(nm*km)
	between 1530 and 1565nm (C Band)	≤18	1.0-10.0	7.0-10.0	ps/(nm*km)
	between 1565 and 1625nm (L Band)	≤22	7.0-12.0	10.0-14.0	ps/(nm*km)
Zero Dispersion	n Wavelength	1310±11	1530-1560	1460-1565	nm
Zero Dispersion	n Slope	0.093	0.093	0.093	ps/(nm2.km)
Point Discontinuity at 1300nm& 1550nm		0.1	0.1	0.1	dB
Mode Field Diameter	@1300nm	9.3±0.5	N/A	N/A	um
	@1550nm	10.4±0.8	8.5±0.6	9.0±0.5	um
Cable Cut-offWavelength		≤1260	≤1450	≤1450	nm
PMD (Individual fiber)		≤0.2	≤0.2	≤0.2	ps/km1/2
Cladding Diameter		125±1	125±1	125±1	um

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Core/Cladding Concentricity Error	≤0.5	≤0.5	≤0.6	um
Cladding Non-Circularity	≤1.0	≤1.0	≤1.0	%
Coating Non-Circularity	≤6.0	≤6.0	≤6.0	%
Primary Coating Diameter	245±10	245±10	245±10	um
Proof-Test Level	100 (0.7)	100 (0.7)	100 (0.7)	Kpsi/GN/m2
Fatigue Coefficient	≥20	≥20	≥20	
Temperature Dependence between 0°C ~ +70°C @ 1310 & 1550nm	0.1	0.1	0.1	Db/km

The fibers contain no splices.

Mechanical Properties:

Tensile load: Short term: 600N Long term: 1500N

Fire Characteristics:

Flame Propagation: IEC60332-1 Low Smoke Capacity: IEC61034-1/2 Halogen Free: IEC60754-1/2

* The data included in the present catalogue are merely indicative; Caledonian Cables Limited reserves to itself the right to change them as its own discretion in any time.