

ADSS 8/12/16/24/48/144 Filamentos SPAN 100m

Max Span: 100m Max. Applied voltage:110kv Initial Sag:0.9%

Max operating weather conditions: 90km/h wind speed and 0mm ice load

Cable Design



- **Central Strength Member (CSM):** Glass fiber reinforced plastic rod (GFRP), with PE sheath covering when needed.
- **Loose Tube:** PBT plastic material, containing 4/6/12 fibers and filled with a suitable water tightness jelly.
- **Stranding:** Loose tube & filler SZ stranded around CSM.
- **Longitudinal Water Tightness:** Dry core with water swellable elements.
- **Ripcord:** 2 polyester ripcords under each sheath.
- **Aramid Yarn:** Aramid yarn as additional strength member.
- **Outer Sheath:** Black HDPE.

Cable Specification

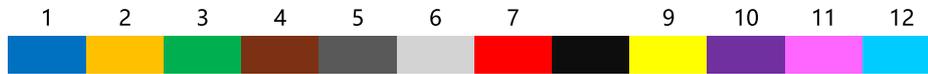
Cable description							
Item	Specified	1	2	3	4	5	6
Cable Cores		8	12	16	24	48	144
No. of Tubes		2	2	4	4	4	12
Fiber Counts in Tube		4	6	4	6	12	12
No. of Fillers		3	3	1	1	1	/
Tube/Filler- Φ	mm	2.2	2.2	2.2	2.2	2.2	2.2
CSM- Φ	mm	1.7	1.7	1.7	1.7	1.7	3.3
Coated CE- Φ	mm	/	/	/	/	/	6.6
Thickness of Outer Sheath	mm	1.5	1.5	1.5	1.5	1.5	1.5
Nom. Cable Diameter	mm	9.5	9.5	9.5	9.5	9.6	14.4
Nom. Cable Weight	kg/km	70	70	70	70	70	160
MAT	N	1350	1350	1350	1350	1450	3100

Color Code for Fiber and Loose Tube

Fiber color



Loose tube color(s)



Cable Performance

Cable performance		
Test	Specified Value	Acceptance Criteria
Tensile <small>IEC 60794-1-21, E1</small>	MAT	$\Delta\alpha \leq 0.05$ dB, fiber strain $\leq 0.33\%$
Crush <small>IEC 60794-1-21, E3</small>	1000 N/10cm	$\Delta\alpha \leq 0.05$ dB, no sheath damage
Impact <small>IEC 60794-1-21, E4</small>	4.5 J	$\Delta\alpha \leq 0.05$ dB, no sheath damage
Repeated Bending <small>IEC 60794-1-21, E6</small>	R=30D, 25 cycles	$\Delta\alpha \leq 0.05$ dB, no sheath damage
Torsion <small>IEC 60794-1-21, E7</small>	1m, 10 cycles, $\pm 180^\circ$	$\Delta\alpha \leq 0.05$ dB, no sheath damage
Temperature Cycling <small>IEC 60794-1-22, F1</small>	2 cycles, $-25 \sim +70^\circ\text{C}$	$\Delta\alpha \leq 0.10$ dB/km, no sheath damage
Water Penetration <small>IEC 60794-1-22, F5</small>	3m sample, 1m height, 24 h	No water leakage

Fiber Performance

G.652D performance		
Characteristics		Acceptance Value
Attenuation	@1310nm	≤ 0.35 dB/km
	@1383nm	≤ 0.35 dB/km
	@1550nm	≤ 0.21 dB/km
	@1625nm	≤ 0.24 dB/km
Mode field diameter (MFD)	@1310nm	9.2 ± 0.4 μm
	@1550nm	10.4 ± 0.5 μm
Chromatic dispersion coefficient	1288~1339nm (absolute value)	≤ 3.5 ps/(nm·km)
	1271~1360nm (absolute value)	≤ 5.3 ps/(nm·km)
	@1550 nm	≤ 18 ps/(nm·km)
Zero-dispersion wavelength		1302nm~1322 nm
Zero-dispersion slope		≤ 0.092 ps/(nm ² ·km)
Cable cut-off wavelength λ_{cc} (nm)		≤ 1260 nm
Polarization mode dispersion (PMD, for fiber on the reel)		≤ 0.20 ps/km ^{1/2}
Cladding diameter		125 ± 1.0 μm
Cladding non-circularity		≤ 0.70 %
Core/cladding concentricity error		≤ 0.7 μm
Proof test		≥ 0.69 GPa (100kpsi)