
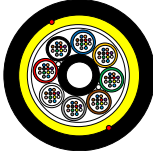



1. Application / Construction

Identification	ADSS-12/24/48/72/96/144 B1.3-PE		
Application	ADSS Cable		
Cross Section (not to scale)	12/24/48/72 fibers	96 fibers	144 fibers
			
Configuration	<ul style="list-style-type: none"> - PBT loose tube with up to 12 optical fibers, filled with thixotropic compound - Natural PP fillers, when needed - Stranded loose tubes - Central strength member made of fibre reinforced plastic (FRP) or coated FRP - Cable strand: dry, with water blocking materials - Aramid yarns as additional strength member - Outer sheath: HDPE, black, two polyester ripcords under the sheath 		
Temperature Range	Storage and transport -40 to +70°C	Installation -10 to +50°C	Operation -40 to +70°C
Standards	IEC 60793-1, IEC 60793-2, IEC 60794-4-20		
ZTT Specification	20-110431-1-A		
Customer Reference	Common standard		

2. Dimensions

Number of fibers		12		24		48		72	96	144
Loose tubes x fibers		1x12	2x6	4x6	2x12	6x8	4x12	6x12	8x12	12x12
Loose tubes / Dummies		1/5	2/4	4/2	2/4	6/0	4/2	6/0	8/0	12/0
Loose tube / filler Ø	mm	2.4								
Central strength member	mm	2.5							4.2 (3.0)	7.3 (3.4)
Outer sheath thickness	mm	1.6								
Outer diameter (±0.3)	mm	10.9							12.7	15.8
Weight	kg	88							118	181

Note: sheath thickness not consider ripcord portion, sizes and values without tolerances are nominal values

3. Mechanical Properties

MAT	2700 N
Crush resistance / 10 cm	1500 N
Bending radius (installation)	20x cable Ø
Bending radius (operation)	10x cable Ø

Note: suit for 80m span, 25m/s wind speed, see Point 6: Test Methods

4. Marking

Fiber Colors	1	2	3	4	5	6	7	8	9	10	11	12
	blue	orange	green	brown	slate	white	red	black	yellow	violet	rose	aqua
Tube Colors	1	2	3	4	5	6	7	8	9	10	11	12
	blue	orange	green	brown	slate	white	red	black	yellow	violet	rose	aqua

Outer Sheath: black, ink jet, marking in 1 meter intervals as follows:

ZTT OPTICAL CABLE ADSS-12/24/48/72/96/144 B1.3-PE <fiber counts> <batch ID> <meter marking >

5. Optical Fiber

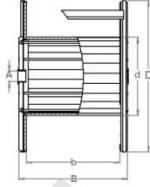
Standard	ITU-T G.652D			
Optical	Fibre attenuation .. cabled	@ 1310 nm ≤0.40 dB/km	@ 1550 nm ≤0.30 dB/km	
	Mode field diameter (MFD)	9.2 ± 0.4 μm	10.4 ± 0.5 μm	
	Dispersion	@ 1300 +30/-15 nm @ 1550 nm @ 1625 nm	≤3.5ps/(nm·km) ≤18.0ps/(nm·km) ≤22ps/(nm·km)	
	Zero dispersion wavelength	1300~1324 nm		
	Zero dispersion slope	≤0.092 ps/nm ² ·km		
	Polarisation mode dispersion (PMD)	≤0.2 ps/√km		
	Cut-off wavelength	≤1260 nm		
	Macro bending loss .. 100 turns Ø50 mm	@ 1550 nm ≤0.05 dB	@ 1625 nm ≤0.10 dB	
Geometric	Coating diameter (uncolored)	245 ± 10 μm		
	Cladding diameter	125 ± 1.0 μm		
	Core/clad concentricity error	≤0.6 μm		
	Cladding non-circularity	≤0.8 %		
	Cladding/coating concentricity error	≤12.0 μm		
Mechanical	Proof stress	≥0.69 Gpa (100kpsi)		
	Dynamic stress corrosion susceptibility parameter (typical value)	≥20		

6. Test Methods

Test	Conditions	Acceptance criteria
Tensile strength IEC 60794-1-2 E1	Tensile strength: see Point 3 Sample length: ≥ 50 m, Duration: 1 min	- Fiber strain: ≤0.33%, Δα reversible
Crush resistance IEC 60794-1-2 E3	Crush: see Point 3 Test duration: 1 min, number of test: 3	- Δα reversible - No damage
Impact IEC 60794-1-2 E4	Impact energy: 3 J R = 10 mm, number of places/tests: 3	- Δα reversible - No damage
Repeated bending IEC 60794-1-2 E6	Bending radius: 20x cable Ø 100 cycles, 100N	- Δα reversible - No damage
Torsion IEC 60794-1-2 E7	Sample length: 2 m ± 90°, 5 cycles, 100N	- Δα reversible - No damage
Bend IEC 60794-1-2 E11A	Bending radius: 10x cable Ø 5 bends, 5 cycles	- Δα reversible - No damage
Temperature cycling IEC 60794-1-2 F1	-40°C → +70°C 4 hours at each step, 2 cycles	- Δα ≤ 0.05dB/km - No damage
Water penetration IEC 60794-1-2 F5	Sample length: 3 m Water column height: 1 m Test duration: 24 h	- No water leakage

All optical measurements at 1550 nm

7. Logistics

Cable type	Length Tolerance	4km -1% / +3%	 D*d*B in cm
ADSS-12/24/48/72 B1.3-PE	Drum Type Dimensions Weight	Wood 125*50*75 436	
ADSS-96 B1.3-PE		Wood 125*60*110 577	
ADSS-144 B1.3-PE		Wood 175*80*75 895	

Dimensions including protection. Indicative values, actually delivered drum sizes and weights may deviate. Cable ends sealed with caps

A	Jul.09,2020	Dendi	Erica	Felix	/
Version	Date	Prepared	Reviewed	Approved	Remark

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