

CABLE DE FIBRA ASU DE 12 HILOS, SPAN 100, 4KM/ROLLO

MODELO ASU-12B1-100M

1.PRODUCT DESCRIPTION

THIS SPECIFICATION COVERS THE GENERAL REQUIREMENTS AND PERFORMANCE OF CABLE, WHICH YOT OFFERED INCLUDING OPTICAL CHARACTERISTICS, MECHANICAL CHARACTERISTICS AND GEOMETRICAL CHARACTERISTICS AND ETC.

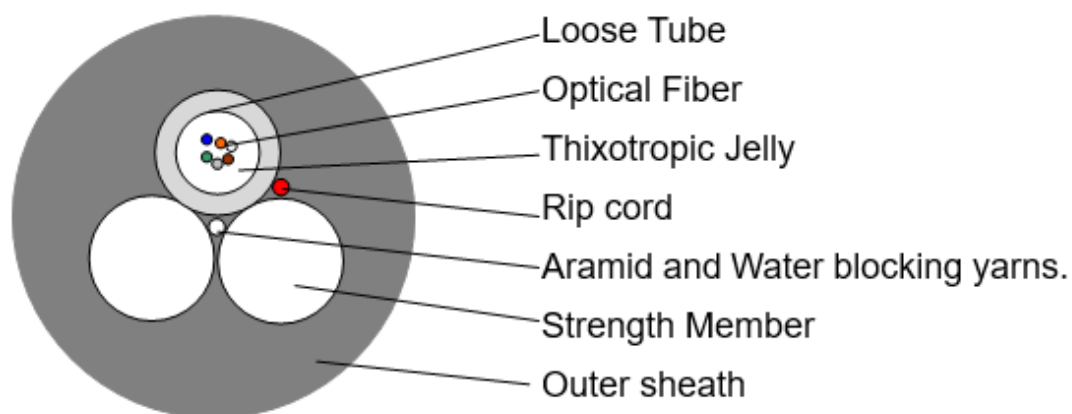
2.OPTICAL FIBER

OPTICAL FIBER CHARACTERISTICS (FPC G.652D FIBER)

Category	Description		Specifications
			G.652D
Optical Specifications	Attenuation	@1310nm	$\leq 0.36\text{dB/km}$
		@1550nm	$\leq 0.22\text{dB/km}$
	Attenuation discontinuity		$\leq 0.05\text{ dB}$
	Attenuation vs. Wavelength	@1285~1330nm	$\leq 0.05\text{ dB/km}$
		@1525~1575nm	$\leq 0.05\text{ dB/km}$
	Zero Dispersion Wavelength		1300~1324nm
	Zero Dispersion Slope		$\leq 0.092\text{ps}/(\text{nm}^2.\text{km})$
	Dispersion	@1310nm	$\leq 3.5\text{ ps/nm.km}$
		@1550nm	$\leq 18\text{ ps/nm.km}$
	Polarization Mode Dispersion(PMD)		$\leq 0.2\text{ps/km}^{1/2}$
	Cable Cutoff Wavelength(λ_{cc})		$\leq 1260\text{nm}$
Geometric Specifications	Mode Field Diameter	@1310nm	$9.2\pm 0.4\mu\text{m}$
		@1550nm	$10.4\pm 0.8\mu\text{m}$
	Cladding Diameter		$125\pm 1\mu\text{m}$
	Cladding Non-Circularity		$\leq 1.0\%$
	Coating Diameter		$243\pm 7\mu\text{m}$
	Coating/Cladding Concentricity Error		$\leq 12\mu\text{m}$
	Core/Cladding Concentricity Error		$\leq 0.8\mu\text{m}$
Mechanical Specifications	Proof Test level		$\geq 1.0\%$
	Fiber Curl Radius		$\geq 4.0\text{m}$
	Peak Coating Strip Force		1.3~8.9N

3.OPTICAL CABLE

CONSTRUCTION OF CABLE



Cable type		1-12
Span	m	100
element	--	3
Strength Member	Material	Fiberglass Reinforce with Plastic (FRP)
	Diameter	Nom.2.0mm
	Number	2
Loose Tube	Material	Polybutelene Terephthalate (PBT)
	Diameter	Nom.2.3mm
Filling compound in loose tube	Material	Thixotropic jelly
Water blocking	Material	Water blocking yarn
Outer Sheath	Material	Black HDPE
	Thickness	Nom.1.0mm
Outer Diameter	mm	Nom.7.5
Cable Weight	kg/km	Approx.52
Short term tensile	N	1000

3.2 Fiber coding, the color coding of the optical fiber shall be in accordance with Table 3.2.1

No. of fiber	1	2	3	4	5	6
Color of fiber	green	yellow	white	blue	red	violet
No. of fiber	7	8	9	10	11	12
Color of fiber	brown	pink	black	gray	orange	aqua

Table3.2.2: Identification of optical tube

No. of tube	1
Color of tube	Natural

Table3.2.3: Make-up of cable, No. of Fibers in each Tube

No. of Fibers	No. of Tube		1	2	3
6	1	Tube color	Natural	FRP	FRP
		No. of fiber	6		
12	1	Tube color	Natural	FRP	FRP
		No. of fiber	12		

4. TEST REQUIREMENTS

No	Item	Test standard	Method	Acceptance criteria
1	Tensile test	IEC-60794-1-E1	-Max. Tensile strength -Sample length:50 meters -Time: 10minutes;	-Fiber strain at maximum Load: max. 0.33% -Attenuation increase $\leq$ 0.15dB
2	Crush Test	IEC-60794-1-E3	-Load:1000N -Time: 5minutes -Length: 100mm - Position: One point and one time	-No splits or cracks in the outer jacket; -Attenuation increase $\leq$ 0.15dB
3	Impact test	IEC-60794-1-E4	-Impact energy: 200g - Height:1 meter -Impact points: 1 --Number of impacts: 5	-No splits or cracks in the outer jacket -Attenuation increase $\leq$ 0.15dB(after the test)
4	Torsion test	IEC-60794-1-E7	-1m cable length with 150N weight - $\pm 180^\circ$, 10 cycles	- No splits or cracks in the outer jacket -Attenuation increase $\leq$ 0.15dB(after the test)
5	Repeated bending	IEC-60794-1-E6	-Radius=25 $\times$ cable outer diameter -1m cable length with 150N	- No splits or cracks in the outer jacket -Attenuation increase

5. PACKING AND DRUM

- **5.1** The cable is wound on a non-returnable wooden drum. Both ends of cable are securely fastened to drum and sealed with a shrinkable cap to prevent ingress of moisture. The following information shall be marked on the outer sheath of the cable at an interval of about 1 meter.
- Cable type and number of optical fiber
- Manufacturer name
- Month and Year of Manufacture
- Cable length
- The sequential number of the cable length shall be marked on the outer sheath of the cable at an interval of 1meter $\pm$ 1%.
- **5.2** Drum marking, Each side of every wooden drum shall be permanently marked in a minimum of 2.5~3 cm high lettering with following:
- Manufacture name and logo
- Cable length
- Cable type and number of fibers
- Roll way
- Gross and net weight