

(A-DQ(BN)(SR) 2Y

Product Code: (A-DQ(BN)(SR) 2Y -

Single Loose Tube Corrugated Steel Tape Armored Single Sheathed Buried Type Fiber Cable



TECHNICAL SPECIFICATION OF CENTRAL TUBE CONSTRUCTION AND ARMoured SINGLE SHEATHED FIBER OPTICAL CABLE (IEC 60794-3-12)

(A-DQ(BN)(SR) 2Y mxn 1.200N CT)

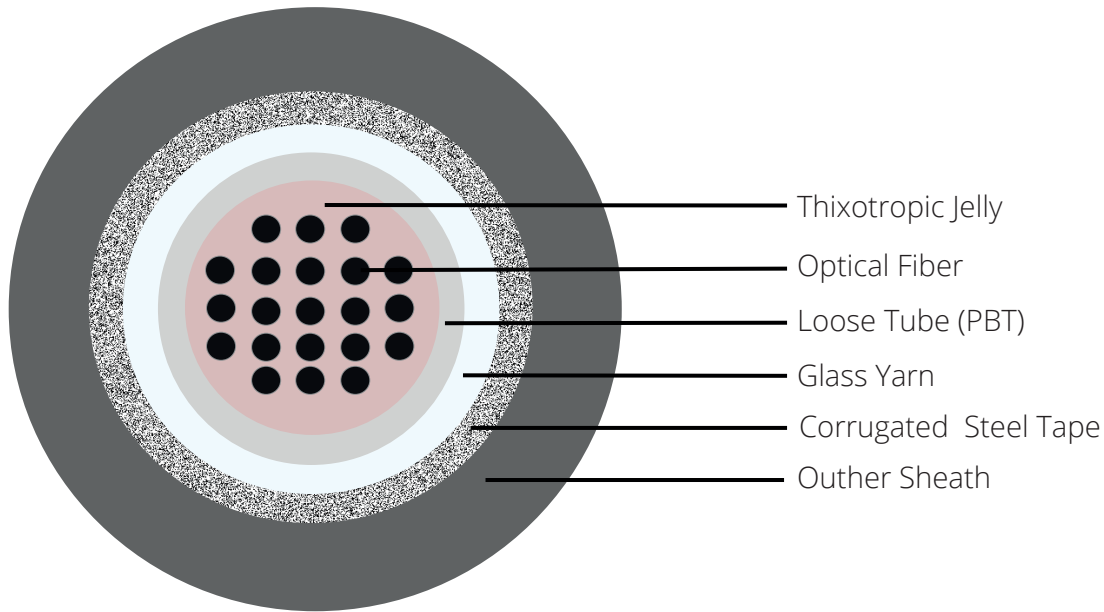
Fiber Type	SM 9/125 (G.652 d)
Attenuation at 1310 nm	Max .0,36 dB/km
Attenuation at 1550 nm.	Max. 0,22 dB/km

		Up to 24 Core
Tube Diameter	mm±0,07	3,00
Tube inner diameter	mm±0,07	1,90
Number of tube	Pieces	1
Number of fiber per tube	Fiber/tube	Up to 24 fiber
Nominal Outer Diameter of cable	Nom mm	8,0
Nominal Cable Weight	Kg/km	85
Nominal Gross Weight	Kg/drum	250
Drum Flange Diameter	cm	85
Nominal Cable Length on Drum	Meter/drum ±%5	2.000

		Conformance
Corrugated Steel Tape Thickness	0,155±0,015	
Copolymer Thickness	0,055 ±0,0015 mm	
Outer Sheath Material	MDPE-HDPE - LSZH	
Outer Sheath Thickness	Nom 1,6 mm ±0,2	
Ripcord	1 pieces under the steel tape	
Cable Length per Drum	2.000 mt± %5	
Tensile Strength for short term	1.200 N	IEC 60794-1-E1
Tensile Strength for long term	800 N	IEC 60794-1-E1
Bending Radius	20 x D	IEC 60794-1-2E11
Repeating Bending	10 cycle, 15xD, 50 N	IEC 60794-1-2E6
Torsion Test	±180 ° 1 meter, 100N,10 cycle	IEC 60794-1-2-E7
Kink Test (D: Outer diameter of Cable)	Min 20 x D at 20°C	IEC 60794-1-2E10
Impact Test	1 meter, 5 N	IEC 60794-1-E4
Crush Test	1.000 N/100 mm	IEC 60 794 -1 E3
Temperature Cycling	-30 / +80°C	
Operation Temperature	-30 +60°C -Installation - -40 +80°C -Operation	

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Cable Construction:



Note: Drawing is not scaled

Color Code of Fibers

No of Fiber	1	2	3	4	5	6	7	8	9	10	11	12
Color	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Turquoise

No of Fiber	13	14	15	16	17	18	19	20	21	22	23	24
Color	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Turquoise
	Black	Black	Black	Black	Black	Black	Black	Black	Black	Black	Black	Black

Length marking on the cable

The outer sheath will be marked in one meter intervals as follows;

FIBLINE <Years> Drum Number <Year of manufacturing> <number and type of fiber> <length marking in meter>

Color of Sheath

Outer sheath color is BLACK that is including %2,5 carbon black.

Packing

Shipment will be done with non-returnable wooden drums with protection.

Cable Life Time

Designed cable has a minimum 25 years' service life time, if the cable is correctly installed.

TECHNICAL SPECIFICATION FOR SINGLE MODE OPTICAL FIBER (G.652 d.)

Optical Specifications

Attenuation	@1310 nm:	@ 1383±3 nm
	@1550 nm:	Max. 0,194 dB/km
	@ 1383±3 nm	Max. 0,310 dB/km
Attenuation Change	@1285-1330 nm	≤ 0,03 dB/km (1310 nm reference)
	@1525-1575 nm	≤ 0,02 dB/km (1550 nm reference)
Cable Cut-off Wavelength:		≤ 1260
Chromatic Dispersion	at 1285~1330 nm	≤ 3,5 (ps nm/km)
	at 1550 nm	≤ 18 (ps nm/km)
	at 1625 nm	≤ 22 (ps nm/km)

Optical Specifications

Zero Dispersion Wavelengths	1302-1322 nm
Zero Dispersion slope	≤ 0,090 ps/(nm ² .km)
Polarization Mode Dispersion Coefficient	≤ 0,2 PS/ km

Geometrical Specifications

Mode Field Diameter at 1310 nm	9,2µm ± 0,4
Mode Field Diameter at 1550 nm	10,4µm ±0,5
Cladding Diameter	125µm ±0,7µm
Core/Cladding Concentricity Error	≤ 0,5µm
Cladding Non-Circularity	≤ 0,7%
Coating Diameter	250±15µm
Coating Concentricity Error	≤ 15µm
Coating/cladding Non-Circularity Error	≤ 12%
Fiber proof test level	≥ 120 kpsi (1,2 % strain)

(A-DQ(BN)(SR) 2Y

TECHNICAL SPECIFICATION FOR 50/125 MM OM2 OPTICAL FIBER**Optical Specifications**

Attenuation	@850 nm:	Max 2,5 dB/km
	@1300 nm:	Max 0,70 dB/km
Band width	@ 850 nm	Min 500 MHz km
	@1300 nm	Min 500 MHz km
Numerical Aperture		0,200 ± 0,015

Geometrical Specifications

Core Diameter	50 ±2,5µm
Coating Diameter	245 ±10µm
Cladding Diameter	125 ±2 µm
Cladding Non Circularity	Max 2%
Coating	Dual Layer UV Cured Acrylate Coat

TECHNICAL SPECIFICATION FOR 62,5/125 MM OM1 OPTICAL FIBER**Optical Specifications**

Attenuation	@850 nm:	Max 3,0 dB/km
	@1300 nm:	Max 0,70 dB/km
Band width	@ 850 nm	Min 160 MHz km
	@1300 nm	Min 300 MHz km
Numerical Aperture		0,275±0,015

Geometrical Specifications

Core Diameter	62,5 ±3µm
Coating Diameter	245 ±10µm
Cladding Diameter	125 ±2 µm
Cladding Non Circularity	Max 2%

TECHNICAL SPECIFICATION FOR MM OM3 OPTICAL FIBER

Optical Specifications

Attenuation	@850 nm	Max 2,50 dB/km
	@1300 nm	Max 0,70 dB/km
Band width	@850 nm	Min 1.500 MHz km
	@1300 nm	Min 500 MHz km
Numerical Aperture		0,200 ± 0,015

Geometrical Specifications

Core Diameter:	50 ±2,5µm
Coating Diameter:	245 ±10µm
Cladding Diameter:	125 ±1 µm
Cladding Non Circularity:	Max 2%
Coating	Dual Layer UV Cured Acrylate Coat

TECHNICAL SPECIFICATION FOR MM OM4 OPTICAL FIBER

Optical Specifications

Attenuation	@850 nm	Max 2,50 dB/km
	@1300 nm	Max 0,60 dB/km
Zero Dispersion wavelength		1295-1340 nm
Zero Dispersion Slope		≤0,105 ps/nm ² -km(1295≤λ0≤1310 nm)
Band width	@850 nm	Min 4.000 MHz km
	@1300 nm	Min 4.000 MHz km
Numerical Aperture		0,200 ± 0,015

Geometrical Specifications

Core Diameter:	50 ±2,5µm
Coating Diameter:	245 ±10µm
Cladding Diameter:	125 ±1 µm
Cladding Non Circularity:	Max 1%
Coating Non Circularity:	Max 5%
Coating –Clad Concentricity Error	≤ 8µm
Tensile Proof Test	100 kpsi
Coating	Dual Layer UV Cured Acrylate Coat

TECHNICAL SPECIFICATION FOR SINGLE MODE OPTICAL FIBER (G.657 A2)

Optical Specifications

Attenuation	@1310 nm:	Max.0,35 dB/km
	@1550 nm	Max. 0,21 dB/km
	@1625 nm:	Max. 0,22 dB/km
	@ 1383±3 nm	Max. 0,33 dB/km

Bending induced attenuation

Mandrel radius	Number of Turns	Wavelength	Attenuation
7,5 mm	1	1550	Max 0,50
7,5 mm	1	1625	Max 1,0
10 mm	1	1550	Max 0,10
10 mm	1	1625	Max 0,20
15 mm	10	1550	Max 0,03
15 mm	10	1620	Max 0,03

Cable Cut-off Wavelength ≤ 1260

Cable Cut-off Wavelength at 1550 nm ≤ 18 (ps nm/km)

Optical Specifications

Zero Dispersion Wavelengths	1300-1324 nm
Zero Dispersion slope	$\leq 0,092$ ps/(nm ² .km)
Polarization Mode Dispersion Coefficient:	$\leq 0,2$ ps/ rkm
Fiber PMD link design value	$\leq 0,08$ ps/ rkm

Geometrical Specifications

Mode Field Diameter at 1310 nm:	8,6µm ± 0,4
Cladding Diameter:	125µm ±0,7µm
Core/Cladding Concentricity Error:	$\leq 0,5\mu\text{m}$
Cladding Non-Circularity:	$\leq 0,7\%$
Coating Diameter colored	250±15µm
Coating/Cladding Non-Circularity Error	$\leq 12\%$
Fiber proof test level	≥ 100 kpsi (1,0 % strain)