Fibline

A-DQ ZN 2Y SR 2Y 2.700N LG

Product Code: A-DQ ZN 2Y SR 2Y 2.700N LG

CABLE CONSTRUCTION FOR DIRECT BURIED TYPE CORRUGATED STEEL TAPE ARMOURED DOUBLE SHEATHED TYPE FIBER OPTIC CABLE (IEC 60794-3-12)

A-DQ ZN 2Y SR 2Y 2.700N LG	
Fiber Type	SM 9/125 (G.652 d)
Attenuation at 1310 nm	Max 0,360 dB/km
Attenuation at 1550 nm.	Max 0,210 dB/km

Core Size		48(04x12)SM G.652.d
Tube Diameter	mm±0,07	2,25
Tube inner diameter	mm±0,07	1,40
FRP Diameter	mm±0,07	2,50
Number of tube	Pieces	4
Number of dummy tube	Pieces	2
Number of fiber per tube	Fiber/tube	12
Nominal Outer Diameter of cable	Nom.mm±0,5	15,7
Nominal Cable Weight	Kg/km±5	220

Loose Buffer Tube	PBT (Polybutylene terephthalate)
Filling Compound in Loose Tube	Thyrotrophic Jelly Compound
Water Blocking Material	Water Swellable Material
Central Strength Member	FRP
Core Wrapping Tape	Water Blocking Tape
Auxiliary Strength Member	Aramid Yarn
Ripcord	1 pieces under the inner sheath
Color of Inner Sheath	Black
Inner Sheath Material	MDPE&LDPE
Inner Sheath Thickness	1,3 ± 0,1 mm
Ripcord	1 pieces under the steel tape
Corrugated Steel Tape Thickness (Armor)	0,155 ± 0,015 mm
Copolymer Thickness	0,055 ± 0,0015 mm
Color of Outer Sheath	Black
Outer Sheath Material	HDPE&MDPE
Outer Sheath Thickness	1,6 ± 0,1 mm
Cable Length per Drum	Up to 4.000 ± %5 mt

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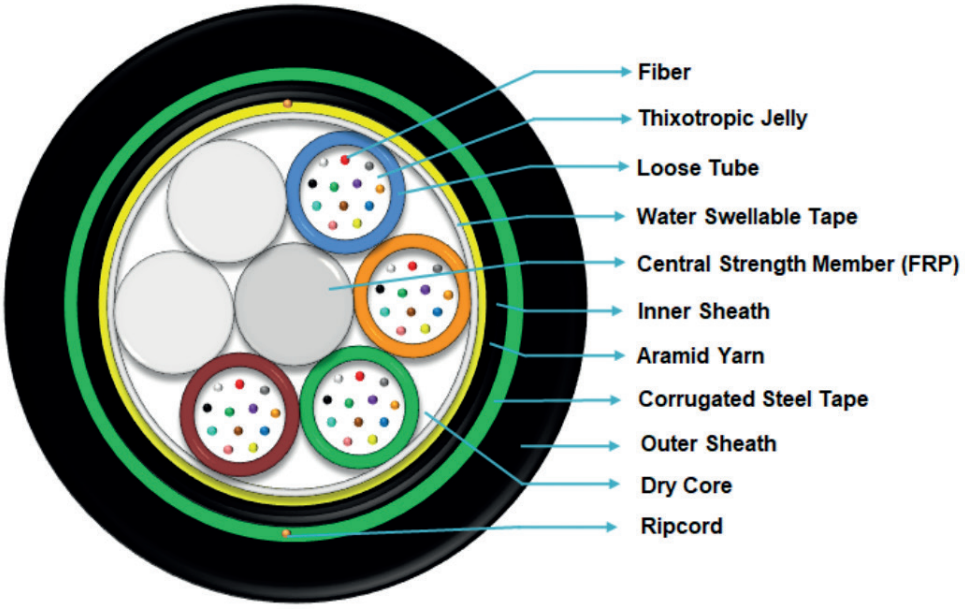
Cable Construction for 48(04x12)SM G.652 d



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	1	2	3	4	5	6
Color	Blue	Orange	Green	Brown	Dummy	Dummy

Length marking on the cable

The following designations shall be applied in a continuous row to the outer sheath so that they are clearly legible over the entire length of the cable.

a) Customer Name

b) The year of manufacture (like 2023)

c) Name of Manufacturer (FIBLINE CABLE)

d) Cable Type like ARMORED

e) Single Mode Optical Fiber (Like SM G.652 d...)

f) Marks of Meter that is indicating the length ZZZZ meter

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

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		Conformance
T ensile Strength(installation)	IEC 60794-1 E1	Min 2.700N Attenuation Change (Max 0,05 dB)
Tensile Strength(Operation)	IEC 60794-1 E1	Min 1.700N Attenuation Change (Max 0,05 dB)
Cable Bend 20xD,	IEC 60794-1-E11	Attenuation Change (Max 0,1 dB) No Damage and breakage of the cable
Impact Test 1 meter 10N	IEC 60794-1-E4	Attenuation Change (Max 0,05 dB)
Crush Strength 200 N/cm	IEC 60794-1-E3	Attenuation Change (Max 0,05 dB)
Torsion Test 2 meter 10 kg ±1800 10 cycles(20 times)	IEC 60794-1-E7	Attenuation Change (Max 0,05 dB)
Flexing Test 20xD,30 cycles/min	IEC 60794-1-E8	Attenuation Change (Max 0,05 dB) No Damage and breakage of the cable
Kink Test 3 meter, formed in to loop Min 20xD	IEC 60794-1-E10	Attenuation Change (Max 0,05 dB)
Repeated Bending Test 10 cycle, 10 kg load, L>1,5 meter, 20xD	IEC 60794-1-E6	Attenuation Change (Max 0,1 dB)
Temperature Cycling (-400C to +800C) Transition from 200C to -400C : 4 hour Duration -400C :36 hour Transition from -400C to 850C : 4 hour Duration +850C :36 hour Duration of each cycle:36 hour Number of cycle: 1	IEC 60794-1-F1	Attenuation Change (Max 0,05 dB)
Water penetration 3 meter, 24 hour	IEC 60794-1-E5	No Leakage at the end of the cable
Filing &Flooding compound flow	IEC 60794-1-E14	No flow

Inner/Outer Sheath

Outer sheath material is HDPE black that is including %2,5 ±0,5 carbon black. Inner sheath material is MDPE and black color.

Cable Life Time

Designed cable has a minimum 30 years' service life time, even if the cable is correctly installed.

Packing and Marking

Shipment will be done with non-returnable non-fumigated wooden drums with protection. All drums should be covered by plastic sheet and sealed by strong wooden battens. The optical cables should be drummed and at least 1 meter inside end of the cable will be reserved for the testing on the each drum.

The cable drums are labeled as

-Manufacturer Name and year of Manufacturing (FIBBLINE CABLE 2023) -Name of Customer

-Roll of Direction

-OPTICAL FIBER CABLE

-Gross Weight .....kg

-Net Weight.....kg

-Length.....meter

-Cable Type and size (Eg....48 core SM G.652 d. ARMORED) -Drum Number for each drum

All mentioned information also written on the metal plate and the metal plate should be fastening on the drum.

Technical Specification for Single Mode Optical Fibre (G.652 d)

Optical Specifications - Attenuation	
@1310 nm:	Max.0,334 dB/km
@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: Chromatic Dispersion ≤ 1260	
at 1285~1330 nm	≤ 3,5 (ps nm/km)
at 1550 nm	≤ 18 (ps nm/km)
at 1625 nm	≤ 22 (ps nm/km)

Zero Dispersion Wavelengths:	1302-1322 nm
Zero Dispersion slope	≤ 0,090 ps/(nm2 .km)
Polarization Mode Dispersion Coefficient:	≤ 0,2 PS/ km

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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	≥ 100 kpsi (1,0 % strain)