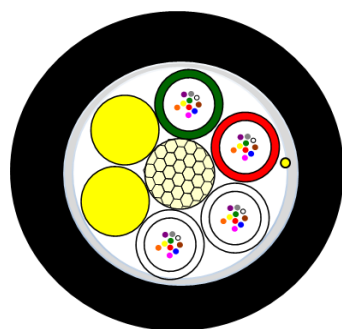


DUCT OPTICAL FIBRE CABLE

Technical Information



Cable Design - According to IEC/EN 60794

- Central Strength Member (CSM): glass fibres reinforced plastic material (FRP)
- Loose Tube: thermoplastic material containing 12 optical fibres and filled with a suitable water tightness compound
- Filler Elements: thermoplastic rods, when needed
- Stranding: loose tubes, SZ stranded around the CSM
- Longitudinal Water Tightness: water swellable materials (dry core)
- Outer Sheath: PE two ripcord beneath

48FO version illustrated, not to scale

Technical Data

No. of Fibres		48	96	144	288
Design	-	4x12	8x12	12x12	9x12+15x12
Tube Diameter - Ø	mm				
CSM/Enlargement - Ø	mm	1.8/-	3.2/-	2.6/5.5	4.0 /-
Outer Sheath Thickness	mm	1.2			
Cable Diameter - Ø		7.9	9.8	12.1	15.0
Cable Weight	kg / km	53	78	112	175
Minimum Bending Radius	mm	Under Maximum Tension: 20 x Cable Ø		Without Tension: 15 x Cable Ø	
Temperature Range	°C	Transport & Storage: -40→+70 Installation: -15→+60 Operation: -30→+70			

Main Characteristics

Test	Standard	Specified Value	Acceptance Criteria
Installation Tensile	IEC 60794-1-21-E1	48fo, 1000N 96÷144, 1500N 288fo, 2500N	A ₁ /I ≤ 0.6%, A _a reversible
Operation Tensile	IEC 60794-1-21-E1	48fo, 500N 96÷144, 750N 288fo, 1000N	A ₁ /I ≤ 0.2%, A _a reversible
Repeated Bending	IEC 60794-1-2-E6	R=20xØD, 100N, 35 cycles	A _a ≤ 0.05 dB, no damage
Crush	IEC 60794-1-2-E3	2000N/100mm, max. 5min	A _a ≤ 0.05 dB under test, no damage
Cable Torsion	IEC 60794-1-2-E7	±180°, 2 m, 5 cycles, 45N	A _a ≤ 0.05 dB after the test, no damage
Impact	IEC 60794-1-2-E4	1J, 3 impacts, R=300 mm	A _a ≤ 0.05 dB after the test, no damage
Temperature Cycling	IEC 60794-1-2-F1	-30 °C +70 °C 2 cycles	A _a ≤ 0.10 dB/Km under test, reversible
Water Penetration	IEC 60794-1-2-F5B	3 m sample, 24 h	No water penetration

DUCT OPTICAL FIBRE CABLE

Technical Information

Optical Characteristics

See the attached optical fibre data sheet C17 G.657A1.

Identification

Fibre Colours

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

Tube Colours

No.	Pilot	Intermediate	Marker
Colour	Red	White	Green

If fillers are required, white tubes become yellow fillers.

Sheath Colour

The outer sheath colour is black.

Sheath Marking:

The outer sheath is marked in 1-meter intervals by ink jet.

Logistics

Packing: Wooden drums with protection.

Delivery Lengths: Standard delivery length is 4 km with a tolerance of - 1% / + 3%.