ABERDARE CABLES DE COMUNICACIONES
Driven by Powertech

CENTRAL TUBE OPTICAL FIBRE CABLE


Optical fibre


Overhead line cable


Flexible Cable


Water blocked


UV resistant

Dielectric

ROHS compliant

STANDARDS

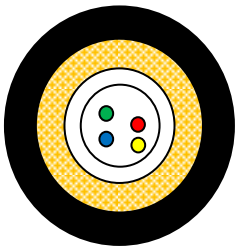
IEC 60794

DESCRIPTION AND APPLICATION

Optical fibre cable containing from 2 to 12 fibres, completely dielectric. Aramid yarns as traction resistance element, HDPE sheath. Recommended for transmission systems of 1310 to 1625 nm using ITU-T G652D fiber

CONSTRUCTION

- ***Tube***: Central PBT loose tube from 2 to 12 fibres inside and thixotropic compound in order to avoid water penetration
- ***Reinforcement:*** Aramid yarns as traction resistance elements
- ***Outer sheath:*** HDPE black outer sheath
- ***Sheath marking*** : The cable sheath will be marked at regular intervals with the following information:
  - *Manufacturer / year / Number of fibres / Length markers/*
  - *Other sheath marks available upon request*



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Certified Company ISO 9001 ISO 14001

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OPTICAL FIBER CHARACTERISTICS

The parameters of the optical fibres are compliant with the ITU-T G.652D recommendation.

Physical characteristics:

Cladding diameter: 125 ± 1 µm
Cladding non circularity ≤ 1%
Coating diameter (coloured):: 250 ± 15 µm
Coating-Cladding concentricity error ≤ 12,5 µm
Coating non circularity ≤ 6%

Optical characteristics:

Attenuation coefficient:

Average at 1310 nm ≤ 0,36 dB/km
Individual maximum at 1310 nm ≤ 0,37 dB/km
Average at 1550 nm ≤ 0,22 dB/km
Individual maximum at 1550 nm ≤ 0,24 dB/km

PMD ≤ 0,20 ps/km$^{1/2}$

TABLE 1: OPTICAL FIBERS COLOUR CODE

Fiber number	Colour
1	White
2	Red
3	Yellow
4	Green
5	Blue
6	Grey

Fiber number	Colour
7	Brown
8	Black
9	Violet
10	Turquoise
11	Orange
12	Pink

MECHANICAL CHARACTERISTICS

CABLE FIBERS		**2-12**
Diameter (mm)		6,5
Weight (kg/km)		33
Maximum installation load (N) ($\Delta\varepsilon_f \leq 0,5\%$)	IEC 60794-1 Met E1	2500
Maximum working load (N) ($\Delta\varepsilon_f \leq 0,33\%$, $\Delta\alpha \leq 0,5$ dB))	IEC 61284	1500
Crush resistance (N/cm) *(Δα < 0.05 dB)*	IEC 60794-1 Met E3	100
Curvature *(Δα < 0.05 dB)*	IEC 60794-1 Met E11	r = 15 x Ø$_{cable}$
Water penetration (3m cable, 1m water column, 14 days)	IEC 60794-1 Met F5B	No leakage
Operating temperature *(Δα < 0.05 dB)*	IEC 60794-1 Met F1	-40 ºC/70 ºC
Compound Flow Test	IEC 60794-1 Met E14	>70ºC

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