



CONTACT

Market information
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Optical fibres and hybrids (optical + electrical) in harsh environment

STANDARDS

Product Nexans specification

APPLICATIONS

With these high mechanical, chemical and optical properties, this cable has been designed for harsh environments such as :

- Aeronautical
- Geophysics,
- Space,
- Missile,
- Chemical industry.

Construction

OPTICAL FIBER

Core + cladding + coating + upcoating
Type 62.5/125/250/400 µm

PRIMARY JACKET

Copolymer zero halogen high temperature
Diameter : 0.90 ± 0.05 mm

MECHANICAL STRENGTH

Polymer aromatic / glass fiber braid

OUTER JACKET

Fluoropolymer
Diameter : 1.80 ± 0.10 mm

Minimum bend radius

Storage > 40 mm

Long term > 18 mm

Short term (installation) > 8 mm

MAIN DATA

Maximum pulling force :

Long term : 10 daN

Short term : 30 daN

Tensile strength : > 100 daN**Nominal weight : < 4.65 kg/km****Maximum attenuation at 20°C :**

at 850 nm : < 6 dB/km

at 1310 nm : < 3 dB/m

Effective index of refraction :

at 850 nm : 1.4970

at 1300 nm : 1.4919

Numerical aperture : 0.275 +/- 0.015**Cable Bandwidth (MHz.km) :**

at 850 nm : > 400

at 1310 nm : > 1000

STRONG POINTS

Mechanical properties :

- High temperature
- High tensile resistance
- High flexibility
- Low weight / Small diameter
- Low bending radius

Optical properties :

- High Bandwidth
- Low cost ferrules (Telecom components)

Chemical properties :

- High chemical resistance to on board fluids
- Very low smoke end toxicity (according to ABD0031 chart 1)
- Flammability : non flammable

CONNECTION

Stripping of primary jacket, buffer and coating.

If mechanical stripping is used , we highly recommend :

- To strip directly from primary jacket to silica
- To carefully clean silica with a solvent such as MEK (Methylethylketone).

Residues of silicone can be removed with a wet tissue by wiping off of different angles in order to clean all the circumference of the silica.

If you dip bare fiber into solvent, take care to avoid contact between solvent and other part of the cable such as strength members, silicone and jacket.