



Materials for specific requirements

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Termite protection

Termite protection can be provided by an outer PA sheath, usually extruded over the standard outer sheath.

Special armour

The following armour can be provided for fibre optic cables that require extra protection against mechanical impacts during installation and operation:

- Double steel tape armour. Two layers of galvanized steel tape completely cover the cable core.
- Galvanized steel wire armour in a stranded concentric layer of round wires.

Rodent protection

Rodent protection may be graded, depending on the perceived degree of risk and the application of the cable.

Several materials can be recommended:

- Corrugated steel tape
- Fibre-reinforced plastic elements outside the tubes
- An additional PA sheath, either inside the outer sheath or extruded over the outer sheath
- A layer of glass fibre rovings

These materials have different protection efficiencies and the cable flexibility varies.

We will be glad to help you to select the right protection for the installation conditions.

Metallic barrier against aggressive fluids

If fibre optic cables are used in petrochemical installations, where it is known that they will be buried in oil-soaked soil or lie in ducts containing oils that attack some plastics, it is essential that the cables are sealed against these fluids.

We can offer either an ALUPE sheath (see outer sheath materials) or a Lead Alloy sheath to achieve this.

Outer sheath materials

The most common outer sheath materials are:

- Polyethylen (PE)
- Copolymer coated aluminium tape bonded to the PE outer sheath (ALUPE)
- Polyvinylchlorid (PVC)
- Halogen-free, flame-retardant compound (HLFR)*
- Nylon (Polyamide-PA)

* Halogen-free and flame-retardant features

Several internationally recognized standards (IEC, BS, VDE,...) define the performance of these materials and the cables using them.

KABELWERK EUPEN AG has formulated its own halogen-free, flame-retardant compound to meet the various fire safety requirements. This compound also has a low water absorption and is suitable for cables used externally.

Please refer to our EUCASAFE Safety Cables catalogue for more information on the HLFR sheathing materials and the tests methods.