

Approvals and conformities

BELLCORE

*Requirements for Cable Placing Lubricants/Technical Audit
Report AU-NWT-000077*

NEXANS

*Recommended After Compatibility Testing With Nexan Cable
Jacket Material*

All Techlube Lubricants share the same chemistry and main characteristics

Techlube FO cable lubricant is a **water-based** underground cable installation lubricant for fibre optic cable pulling operations. It was engineered to meet the special requirements of pulling inner duct (sub duct), communications, and fibre optic cables. Very effective in long distance, difficult fibre optic cable pulling situations. Its string & cling consistency adheres perfectly to cables in wet weather and has a resistance to wash off in water filled ducts. Techlube FO is a non-flammable, non-toxic and **biodegradable** cable lubricant with high elasticity for reduced consumption.

- Easy to apply water-based, high performance cable lubricant
- Superior friction reduction and strong adhesion to cable/duct wall
- Regular pulling tension reduces risk of cable damage during the cable pull
- Dries slowly to form a thin friction reducing film which retains its slip
- Allows additional cable installs or removals in same duct at a later date
- Continues to lubricate the cable jacket even in flooded ducts
- High and low temperature stability
- Compatibility tested with materials used in cable jackets, cable joints and accessories
- Does not contain salt, detergent or grease which can degrade cable jackets
- No threat to environment, spillages can be flushed to drain

USES

Techlube FO is a high performance, pourable liquid, water polymer lubricant to meet the special requirements of pulling communication and fibre optic cables.

- Underground fibre optic cable placements
- Copper and lightweight telecommunication cable installations
- Sub-duct installations
- Duct pre-lubrication

DIRECTIONS FOR USE

Due to the light weight of fibre optic cables and inner-ducts, it is desirable to have as thick and even coating

of lubricant on the surface as long as possible. Uneven lubricant coatings with little surface thickness can lead to a dramatic increase of pulling tension over the long run.

To obtain maximum friction reduction during a communications cable pull, lubricant should be present at all cable/conduit points of interface. To achieve maximum friction reduction between cable and conduit interface, lubricant should be spread evenly throughout the conduit system. The amount of lubricant required for most inner-duct or fibre optic cable pulls is small (pulling 6.35 mm fibre optic cable into 25.4 mm polyethylene inner-duct for a distance of 305 metres requires only 5.68 litres of Techlube FO (see formula outlined below). Because it is a pourable liquid with a low viscosity, Techlube FO can easily be moved through the long conduit runs associated with inner-duct fibre optic pulls by pushing, spreading or blowing.

Any attempt to quantify exactly the amount of lubricant that is needed on any individual installation will fall short of being accurate. In general, experience has revealed that some valid assumptions can be made. Formulas are presented below that have been found to be acceptable for most installations. However, there are field conditions which may require more lubricant than the formulas provide. Knowledge of specific local conditions and experience has proven to be the best judge in these cases.

1. For plastic conduit (PVC, ABS, Polyethylene) use the following:

$$Q = 0.0080 \times L \times D$$

2. For multiple concrete, clay tile, fibre cement, fibre filled and wood conduit use the following:

$$Q = 0.0120 \times L \times D$$

Where Q = Amount of Techlube FO needed in litres

Where L = The total length of pull in metres

Where D = The inside diameter of the individual conduit in centimetres

TECHNICAL CHARACTERISTICS

Appearance	Opaque viscous stringy orange liquid
Specific gravity	1.0
pH	Neutral
Viscosity	ISO 3104 (at 25°C) 2000 - 3500 cPs

PRECAUTIONS FOR USE AND STORAGE

No reportable hazardous substances. Product has extremely low order of acute oral toxicity, but ingestion of large amounts may cause nausea and gastrointestinal irritation.

Storage Temperature: Ambient. Keep containers closed when not in use.

This product will biodegrade readily. Based upon data for a similar substance or estimated data, no acute toxicity to aquatic organisms is expected. Care should be taken in any case to ensure compliance with EU, national and local regulations. Combination with other materials may well indicate another route of disposal.

Please read the safety data sheet for further information.

This technical data sheet replaces and cancels the previous one.

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