

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 similar chemistries and 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 substantially 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
- 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 the environment

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 Viscous liquid
Specific gravity 1.0
pH Neutral
Viscosity ISO 2555 (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.

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.

For more information regarding the danger of the product, please consult the product safety data sheet according to local regulation.

For professional use only.

This technical data sheet replaces and cancels the previous one.

The above details have been compiled to the best of our knowledge. They have, however, an indicative value only and we therefore make no warranties and assume no liability in connection with any use of this information, particularly if a third party's rights are affected by the use of our products. The above information has been compiled based upon tests carried out by SOCOMORE. All data is subject to change as Socomore deems appropriate. The data given is not intended to substitute for any testing you must conduct in order to determine the suitability of the product for your particular purposes. Please check your local legislation applicable to the use of this product. Should you need any further information please contact us.