Technical Data



Lubricool™ 11

High performance heavy duty rod breakdown lubricants



Description

Lubricool 11 is a highly detergent, semi-synthetic lubricant optimised for copper wire drawing applications. The combination of natural and synthetic additive technologies provide Lubricool 11 with high lubrication and wear reduction properties for dies and capstans delivering outstanding surface finish on drawn wire. The highly detergent system with low foaming emulsifiers provide optimum cleanliness which highly resists destablisiation by water hardness salts and dissolved copper ions resulting in significantly enhanced emulsion life.

Lubricool 11 is designed for a wide range of applications - from rod sizes to fine wire - and is suitable for copper, tinned copper and enamelling wire.

Features and benefits

- Provides an exceptional smooth, bright and clean finish to the drawn wire
- Excellent lubrication properties reduce wear on dies and cones and increase drawing speeds
- High detergency
- Excellent emulsion stability and resistance to soap formation extends service life
- High resistance to excessive foaming
- Excellent compatibility with paper band filters
- Extremely robust in use, minimal maintenance time and cost

Global specialists in high-performance lubricants



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Recommended instructions for use

Best used in low hardness and low salt content water, but can be used in waters with up to 200 ppm $CaCO_3$ hardness. Ideally, use water with an initial hardness of 60-100 ppm $CaCO_3$ to prepare a fresh emulsion, with de-ionised water being used for subsequent replacement of evaporation losses, spillage etc. Bulk emulsion operating temperatures of 35 - 40 °C are recommended.

To prepare an emulsion always add Lubricool 11 concentrate to water with adequate agitation – **never** add water to the concentrate.

For further information consult the Metalube wire drawing lubricants guide.

Dilution range

| Rod breakdown | Conventionally cast and rolled rod | 10 – 12% |
|-------------------|------------------------------------|----------|
| | Dip form, shaped or shaved rod | 12 – 15% |
| Intermediate wire | Heavy (entry 3-4mm) | 6 – 8% |
| | Fine (entry <2mm) | 4 – 6% |

Pack sizes

Lubricool 11 is available in 1000 litre IBC or 205 litre drums.

Technical data (typical values)

| Property | Test method | Result |
|---|-------------|--------------------------------|
| Concentrate appearance | MSTM 1 | Clear brown oil |
| Emulsion appearance (10% in de-ionised water) | MSTM 9 | Fine semi-translucent emulsion |
| Emulsion pH (10% in de-ionised water) | MSTM 18 | 9.1 |
| Density at 20°C | MSTM 23 | 0.96 g.cm ⁻³ |
| Conductivity at 25°C (10% de-ionised water) | MSTM 34 | 1015 μS |

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Concentration monitoring

Emulsion concentration is generally measured using a refractometer measuring on the Brix scale.

To obtain the actual dilution multiply the refractometer reading by the correction factor 1.05

e.g. Refractometer reading = 5.0

Correction factor X 1.05

Actual dilution = 5.25%

Storage

Store Lubricool 11 out of direct sunlight and protect from frost. Storage temperature should be controlled to between 5°C and 35°C.

The product information in this publication is based on knowledge and experience at the time of printing. There are many factors outside our control or knowledge which affect the use and performance of our products, for which reason it is given without responsibility.

Issue date 05-17

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Company registration number: 2263118; Company registered in England VAT registration number GB108244927000



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