



Lubricool™ 318

Semi-synthetic copper wire drawing lubricant



Description

Lubricool 318 is a high performance, semi-synthetic lubricant designed for high speed drawing of intermediate, fine and super fine copper wire. The combination of synthetic additive technologies in Lubricool 318 provide maximum lubrication and wear reduction on dies and deliver outstanding surface finish on drawn wire. Careful selection of lubricity additives and emulsifier system has resulted in a product that is highly resistant to degradation and destabilisation by metals and metal ions. This improved stability significantly reduces the risk of wire staining and improves machine cleanliness.

Lubricool 318 is designed for a wide range of applications - from intermediate to super fine wire – on both plain and tinned copper – and is particularly suited to meet the demands of multi-wire machines.

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
- Reduces wire break frequency
- Superior anti-corrosion properties to protect machine parts and the wire surface
- Good resistance to bacterial and fungal attack
- Inherent low foam characteristics
- Excellent emulsion stability extends service life and reduces build-up of deposits on dies and cones
- Excellent compatibility with paper band filters
- Ideal for drawing wire for enamelling

Global specialists in high-performance lubricants

Metalube Limited, 4 Huntsman Drive, Northbank Industrial Park, Irlam, Manchester M44 5EG, UK
Tel: +44 (0)161 775 7771 Fax: +44 (0)161 775 7511 post@metalube.co.uk www.metalube.co.uk

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



Cert No 2367QM8001



Lubricool™ 318

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 CaCO₃ hardness. Ideally, use water with an initial hardness of 60-100 ppm CaCO₃ to prepare a fresh emulsion, with deionised 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 318 concentrate to water with adequate agitation – **never** add water to the concentrate.

For further information consult the Metalube wire drawing lubricants guide.

Dilution range

| | | |
|-------------------|--------------------------|--------------|
| Intermediate wire | Finishing 0.20 – 0.80 mm | 8.0 – 10.0 % |
| Fine/Intermediate | Finishing 0.10 – 0.20 mm | 6.0 – 8.0 % |
| Fine/Superfine | Finishing 0.05 – 0.10 mm | 2.0 – 4.0 % |
| Annealers | | 0.5 – 1.5 % |

Pack sizes

Lubricool 318 is available in 1000 litre IBC, 205 litre drums or 20 litre containers.

Technical data (typical values)

| Property | Test method | Result |
|---|-------------|--------------------------------|
| Concentrate appearance | MSTM 1 | Clear light brown oil |
| Emulsion appearance (5% in de-ionised water) | MSTM 9 | Fine semi-translucent emulsion |
| Emulsion pH (5% in de-ionised water) | MSTM 18 | 9.5 |
| Density at 20°C | MSTM 23 | 0.95 g.cm ⁻³ |
| Conductivity at 25°C | MSTM 34 | 613 µS |

Global specialists in high-performance lubricants

Metalube Limited, 4 Huntsman Drive, Northbank Industrial Park, Irlam, Manchester M44 5EG, UK
Tel: +44 (0)161 775 7771 Fax: +44 (0)161 775 7511 post@metalube.co.uk www.metalube.co.uk

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



Cert No 2367QM8001



Lubricool™ 318

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 1.06

| | | |
|----------------------------|---|-------|
| e.g. Refractometer reading | = | 6.0 |
| Correction factor | X | 1.06 |
| Actual dilution | = | 6.36% |

Storage

Store Lubricool 318 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 01-19

Global specialists in high-performance lubricants

Metalube Limited, 4 Huntsman Drive, Northbank Industrial Park, Irlam, Manchester M44 5EG, UK
Tel: +44 (0)161 775 7771 Fax: +44 (0)161 775 7511 post@metalube.co.uk www.metalube.co.uk

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



Cert No 2367QM8001