



Lubricool™ 450

Semi-synthetic copper wire drawing lubricant



Description

Lubricool 450 is a high performance, semi-synthetic lubricant principally designed for high speed drawing of intermediate and fine copper wire. The product is formulated on synthetic fatty additives and specially selected detergents and emulsifiers for use on single and multi-lines, where good cleaning action is of major importance in preventing plugging of the dies and sticky cones to prevent wire cross-over or tension breaks

The balanced detergency/lubricity characteristics of Lubricool 450 help maintain good productivity by reducing wire breaks and downtime on modern high performance wire drawing 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 enameling

Recommended instructions for use

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™ 450

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 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 450 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 0.30 – 0.80mm	6 – 8%
Fine/Intermediate	Finishing 0.15 – 0.30mm	4 – 6%
Fine/Superfine	Finishing 0.3mm entry	2 – 4%

Pack sizes

Lubricool 450 is available in 205 litre drums

Technical data (typical values)

Property	Test method	Result
Concentrate appearance	MSTM 1	Dark brown oil
Emulsion appearance (5% in de-ionised water)	MSTM 9	Fine semi-translucent emulsion
Emulsion pH (5% in de-ionised water)	MSTM 18	9.2
Density at 20°C	MSTM 23	0.96 g.cm ⁻³
Conductivity at 25°C	MSTM 34	640 µS

Concentration monitoring

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

Global specialists in high-performance lubricants



Lubricool™ 450

To obtain the actual dilution multiply the refractometer reading by the correction factor 1.11

e.g. Refractometer reading	= 5.0
Correction factor	X 1.11
Actual dilution	= 5.55%

Storage

Store Lubricool 450 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 07-20

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