Mobil

PROSOL SERIES

Mobil Industrial , Czech Republic

Emulsifiable rolling oil

Product Description

Prosol NT 70 is an emulsifiable rolling oil based on high quality mineral oils with specially selected additives which are stable at high temperatures. Prosol NT 70 forms milky white emulsions when mixed with water.

Prosol 44 W is a water soluble oil recommended for hot rolling aluminium and aluminium alloys. Prosol 44 W gives a milky-white oil-in-water emulsion when mixed with water, the emulsion stability balance between stability and unstability has been optimised in order to offer high rolling performance and excellent surface finish while minimising the oil consumption per rolled aluminium ton.

The neat oil concentrate is made from solvent refined mineral oil and contains very high contents of rolling active compounds and lubricity additives.

Features and Benefits

Prosol NT 70:

Some of the features and potential benefits offered by this oil are:

- Versatile product for use in many operations.
- Long service life may be achieved with proper maintenance.
- Protection against corrosion.
- EP additives providing higher load carrying capacity.

Prosol 44 W:

Some of the features and potential benefits offered by this oil are:

- Good lubricating properties of the emulsion allow high reduction ratio at high rolling speed.
- Good wetting ability of the emulsion.
- Excellent surface finish quality.
- Balanced fatty acid and lubricity agent contents for improved rolling performance.
- Low rolling force required.
- Reduced mill power consumption.
- Increased mill flexibility : higher reduction ratio, higher rolling speed.
- Short break-in period means optimum emulsion particle size distribution and lubricity level are even obtained with fresh emulsion.
- Ready separation of fines and tramp oil from the emulsion in order to minimise stains.
- High lubricity level to reduce 'pick-up' tendency.
- High resistance to bacteria degradation.
- Long emulsion service life.
- Improved production and reduced costs increases operation profit.

Applications

Prosol NT 70:

Prosol NT 70 is a versatile product which is used in a wide range of metal forming and cutting operations such as:

- Rolling of copper, copper alloys, and mild steel.
- Hydroforming of copper and brass.
- Grinding of stainless steel strips in belt grinding machines.
- Cutting (milling, turning, drilling) of metals (Steel, Copper, Aluminium).

The recommended concentration in water depends on severity of operation but is usually in the range of 5 to 10 vol. %.

Prosol 44W:

Prosol 44 W is recommended for hot rolling of aluminium and aluminium alloys on breakdown reversible 2-high / 4-high mills, finishing tandem mills and on combination mills.

Emulsion strength varies between 3 to 7% depending upon the surface finish targeted, the rolling speed and the reduction involved.

Demineralized water is recommended for daily top-up and fresh emulsion preparation for maximum charge life and excellent surface finish.

Mixing temperatures are not critical but for best results the neat oil and water should be at room temperature between 15 and 25°C.

Always add the oil concentrate to the water phase and not vice versa.

Properties and Specifications

Property	44 W	NT 70
Appearance, AA.Lab.101	Clear and bright	Brown and clear
Kinematic Viscosity 40 C, mm2/s, ASTM D7042		<44
Kinematic Viscosity @ 40C, mm2/s, ISO 3104	<50	
Neutralization Number, mgKOH/g, DIN 51558-1	<44	
Neutralization Number, mgKOH/g, DIN ISO 6618		<8.5
Saponification Number, mgKOH/g, DIN 51559	<80	<31

Health and Safety

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ http://www.msds.exxonmobil.com/psims/psims.aspx

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Typical Properties are typical of those obtained with normal production tolerance and do not constitute a specification. Variations that do not affect product performance are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice. All products may not be available locally. For more information, contact your local ExxonMobil contact or visit www.exxonmobil.com

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