

# Klüber Madol 100 Supreme oils

Needle and sinker oils for hosiery and flat-bed knitting machinery



## Your benefits at a glance

- Good wear protection, hence longer service life of stitch-forming elements
- Smooth running of machines due to noise and oscillation dampening properties
- Scourable with conventional washing liquors at low cost
- Compatible with elastane fibers
- Compatible with electronic components

## Your requirements – our solution

In the knitting industry, requirements in terms of consistent product quality, compatibility of materials, wear protection and scourability are becoming more and more stringent.

We therefore developed the Klüber Madol 100 oils, which are manufactured in consistent quality using special mineral base oils and additives.

Due to their special chemical composition, Klüber Madol 100 Supreme oils ensure reliable wetting of the friction points, keep needle grooves clean and extend the needle life.

The oils' good oxidation stability contribute to reduce wear and deposits on stitch-forming elements, thus ensuring long and trouble-free operation of knitting machines, while at the same time keeping maintenance costs to a minimum.

Klüber Madol 100 Supreme are compatible with elastane fibres and commonly used synthetic fibres as well as sealing materials and plastics.

Klüber Madol 100 Supreme oils are scourable using customary washing liquors.

## Application

Klüber Madol 100 Supreme oils lubricate needles, sinkers, couplings, needle cams, cylinders and cylinder bearings of hosiery and flat-bed knitting machines.

Klüber Madol 100 Supreme oils are available in the viscosity grades ISO VG 22, 32 and 46 and can therefore be used for hosiery and flat-bed knitting machines. Please observe the machine manufacturer's viscosity recommendations.

The oils are tested and approved by leading knitting machine manufacturers.

## Application notes

Klüber Madol 100 Supreme oils can be applied via conventional oil circulation equipment.

Before changing over to Klüber Madol 100 Supreme oils, please make sure the oil feeders are drained and thoroughly cleaned. Different types of needle oils should never be mixed. We recommend Klüber Madol 115 FO Supreme or Klüber Silvertex R14, our special cleaning and flushing agents, to clean your machines.

As the oil changes its viscosity with decreasing temperatures we recommend heating it up before use in order to ensure trouble-free operation of the machines.

Please also observe the pertinent information on the oil containers.

If you wish to optimise the service life of your knitting machine or have any other questions regarding your application, our experts will be pleased to help you. We look forward to hearing from you.

## Material safety data sheets

Material safety data sheets can be requested via our website [www.klueber.com](http://www.klueber.com). You may also obtain them through your contact person at Klüber Lubrication.

Pack sizes	Klüber Madol 162 Supreme	Klüber Madol 172 Supreme	Klüber Madol 183 Supreme
Canister 20 l	-	+	+
Drum 200 l	+	-	+



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Product data	Klüber Madol 162 Supreme	Klüber Madol 172 Supreme	Klüber Madol 183 Supreme
Article number	035100	035101	035102
Flash point, DIN EN ISO 2592, Cleveland, open-cup apparatus	>= 170 °C	>= 170 °C	>= 170 °C
Kinematic viscosity, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 100 °C	approx. 4.5 mm <sup>2</sup> /s	approx. 5.6 mm <sup>2</sup> /s	approx. 6.5 mm <sup>2</sup> /s
Kinematic viscosity, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 40 °C	approx. 22 mm <sup>2</sup> /s	approx. 32 mm <sup>2</sup> /s	approx. 46 mm <sup>2</sup> /s
Density, DIN 51757, 20 °C	approx. 0.84 g/cm <sup>3</sup>	approx. 0.86 g/cm <sup>3</sup>	approx. 0.86 g/cm <sup>3</sup>
Pour point, DIN ISO 3016	<= 0 °C	<= 0 °C	<= 0 °C
Appearance	clear	clear	clear
Colour space	colourless	colourless	colourless
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	24 months	24 months	24 months

## Klüber Lubrication – your global specialist

Innovative tribological solutions are our passion. Through personal contact and consultation, we help our customers to be successful worldwide, in all industries and markets. With our ambitious technical concepts and experienced, competent staff we have been fulfilling increasingly demanding requirements by manufacturing efficient high-performance lubricants for more than 80 years.

**Klüber Lubrication München SE & Co. KG / Geisenhausenerstraße 7 / 81379 München / Germany / phone +49 89 7876-0 / fax +49 89 7876-333.**

The data in this document is based on our general experience and knowledge at the time of publication and is intended to give information of possible applications to a reader with technical experience. It constitutes neither an assurance of product properties nor does it release the user from the obligation of performing preliminary field tests with the product selected for a specific application. All data are guide values which depend on the lubricant's composition, the intended use and the application method. The technical values of lubricants change depending on the mechanical, dynamical, chemical and thermal loads, time and pressure. These changes may affect the function of a component. We recommend contacting us to discuss your specific application. If possible we will be pleased to provide a sample for testing on request. Klüber products are continually improved. Therefore, Klüber Lubrication reserves the right to change all the technical data in this document at any time without notice.

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