

# Klüber Madol 100 Supreme

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 Silververtex 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.

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Pack sizes	Klüber Madol 162 Supreme	Klüber Madol 172 Supreme	Klüber Madol 183 Supreme
Canister 20 l	+	+	+
Drum 60 l			+
Drum 200 l	+	+	+
Container 1000 l		+	+

Characteristics	Klüber Madol 162 Supreme	Klüber Madol 172 Supreme	Klüber Madol 183 Supreme
Article number	035100	035101	035102
Appearance	clear	clear	clear
Colour space	colourless	colourless	colourless
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>
Flash point, DIN EN ISO 2592, Cleveland open cup	≥ 170 °C	≥ 170 °C	≥ 170 °C
Kinematic viscosity, DIN EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 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 EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 40°C	approx. 22 mm <sup>2</sup> /s	approx. 32 mm <sup>2</sup> /s	approx. 46 mm <sup>2</sup> /s
Pour point, DIN ISO 3016	≤ 0 °C	≤ 0 °C	≤ 0 °C
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 90 years.

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