

# Klüber Silvertex W 22, W 32, W 46, W 68

Biodegradable high-performance needle and sinker oils



## Your benefits at a glance

- Comply with the legal requirements set forth in EU Directive 2003/53/EC for placing NP/NPE-containing products on the market
- Long service life of stitch-forming elements due to good wear protection and damping effect
- Compatible with electronic control systems, elastane fibres and commonly used sealing materials and plastics due to the special base oils and additives
- Higher economical efficiency of knitting machines due to reduced downtime
- Reduction of operating costs due to extended maintenance intervals

## 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 Silvertex W needle oils, which are manufactured in consistent quality using special mineral base oils and additives. These oils are biodegradable according to OECD - 301 c. They reduce wear and deposits on stitch-forming elements, thus ensuring long and trouble-free operation of knitting machines, while at the same time reducing operating costs.

Klüber Silvertex W oils are scourable using customary washing liquors.

### Application

Klüber Silvertex W oils lubricate needles, sinkers, couplings, needle cams, cylinders, dials and sinker rings in knitting machines. In addition, they ensure clean needle grooves and help to extend needle and sinker life. Klüber Silvertex W oils are compatible with elastane fibres and commonly used sealing materials and plastics.

Klüber Silvertex W oils are available in the viscosity grades ISO VG 22, 32, 46 and 68 and can therefore be used for circular and flat-bed knitting machines. The oils are tested and approved by leading knitting machine manufacturers.

### Application notes

Klüber Silvertex W oils can be precisely metered by means of conventional oil feeders. Please observe the machine manufacturer's viscosity recommendations.

Before changing over to Klüber Silvertex W oils, please make sure the oil feeders are drained and the oil containers are thoroughly cleaned. Different types of needle oils should never be mixed due to their different chemical composition.

We recommend Klüber Silvertex R 14, our special cleaning and flushing agent, to clean your machines. Monitoring of the lubrication quantity is recommended following changeover with readjustment where necessary.

As the oils change their viscosity with decreasing temperatures, we recommend heating it up before use in order to ensure trouble-free operation of the machines.

Please note that biodegradable products should be handled with the same care as all conventional oils. Any avoidance of contamination is to the benefit of the environment.

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.

# Klüber Silvertex W 22, W 32, W 46, W 68

Biodegradable high-performance needle and sinker oils



Pack sizes	Klüber Silvertex W 22	Klüber Silvertex W 32	Klüber Silvertex W 46	Klüber Silvertex W 68
Canister 20 l	+	+	+	+
Drum 60 l	+	+	+	
Drum 200 l	+	+	+	+
Container 1000 l	+	+	+	

Characteristics	Klüber Silvertex W 22	Klüber Silvertex W 32	Klüber Silvertex W 46	Klüber Silvertex W 68
Article number	035500	035501	035543	035502
Appearance	clear	clear	clear	clear
Colour space	colourless	colourless	colourless	colourless
Density, DIN 51757, 20°C	approx. 0.86 g/cm <sup>3</sup>	approx. 0.86 g/cm <sup>3</sup>	approx. 0.88 g/cm <sup>3</sup>	approx. 0.87 g/cm <sup>3</sup>
Flash point, DIN EN ISO 2592, Cleveland open cup	≥ 180 °C	≥ 180 °C	≥ 180 °C	≥ 180 °C
Kinematic viscosity, DIN EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 100°C	approx. 4.3 mm <sup>2</sup> /s	approx. 5.6 mm <sup>2</sup> /s	approx. 6.7 mm <sup>2</sup> /s	approx. 8.4 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	approx. 68 mm <sup>2</sup> /s
Pour point, DIN ISO 3016	≤ -9 °C	≤ -9 °C	≤ -9 °C	≤ -9 °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	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.

Klüber Lubrication München GmbH & 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.

Publisher and Copyright: Klüber Lubrication München GmbH & Co. KG. Reprints, total or in part, are permitted only prior consultation with Klüber Lubrication München GmbH & Co. KG and if source is indicated and voucher copy is forwarded.