

Klüber Summit RHT 68, RHT 100

Paraffin-based mineral oils especially developed for ammonia refrigeration compressors



Your benefits at a glance

- Low solubility in ammonia
- Excellent flow characteristics at low temperatures
- Lower maintenance costs due to long oil change intervals and reduced oil consumption
- Easier changeover due to neutral behaviour towards seals
- High refrigeration efficiency due to reduced oil deposits
- Lower operating costs due to long filter and oil separator lifetimes
- Lower oil carryover than with naphthene-based mineral oils

Your requirements - our solution

Klüber Summit RHT 68 and Klüber Summit RHT 100 are refrigeration compressor oils on the basis of highly purified, hydrogenated mineral oils.

Klüber Summit RHT 68 and Klüber Summit RHT 100 meet the requirements of DIN 51 5031, KAA.

Application

Klüber Summit RHT 68 is used for the lubrication of screw-type and reciprocating piston compressors in industrial refrigeration plants.

Klüber Summit RHT 100 was especially developed for the operation of reciprocating piston compressors requiring a higher viscosity due to specific operating conditions such as higher operating temperatures in NH₃ heat pumps.

As Klüber Summit RHT 68 and Klüber Summit RHT 100 are highly refined oils, oil carryover is considerably lower than with conventional mineral oils. This leads to lower oil consumption.

The viscosity of Klüber Summit RHT 68 and Klüber Summit RHT 100 remains stable at a level since they contain only a small amount of highly volatile hydrocarbons. The oils' high evaporation stability prevents viscosity increases and thus premature oil change.

The hydrogenated base oil is chemically stable and was designed in particular to withstand the influence of ammonia. While conventional mineral oils tend to blacken when reacting with ammonia, and deposits tend to form in the refrigeration circuit, this is not the case with Klüber Summit RHT oils.

Oil change intervals can be extended significantly. Due to their low solubility in ammonia, Klüber Summit RHT oils contribute to refrigeration plant efficiency. Experience has shown that Klüber Summit RHT 68 can be used with evaporator temperatures as low as -39 °C, and Klüber Summit RHT 100 as low as -30 °C.

Klüber Summit RHT 68 and Klüber Summit RHT 100 are chemically miscible with mineral oils, alkylbenzenes and PAO-based refrigerator oils. They may therefore be used to top up such oil fills. The full performance capacity of Klüber Summit RHT 68 and Klüber Summit RHT 100 will only come to bear with a complete change of the oil and filters.

Klüber Summit RHT 68 is neutral towards most chloroprene and neoprene seals typically used in refrigeration equipment. Klüber Summit RHT oils are less soluble than naphthene-based mineral oils, which reduces the influence on the swelling behaviour of the seals to a minimum. In some rare cases, a changeover from naphthene-based refrigerator oils to a Klüber Summit RHT oil may lead to leakages as the oil change may cause seals to shrink to their original size. In our experience, such leakages are very small and reversible, depending on the runtime and the maintenance condition of the refrigerator.

Application notes

Drain old oil from the whole circuit of the refrigeration compressor while still warm. We recommend replacing all oil filters and oil separators and completely drain oil traps of the refrigeration circuit.

Then refill the compressor with Klüber Summit RHT 68 or Klüber Summit RHT 100.

Klüber Summit RHT 68, RHT 100

Paraffin-based mineral oils especially developed for ammonia refrigeration compressors



Material safety data sheets

Material safety data sheets can be requested via our website www.klueber.com. You may also obtain them through your contact person at Klüber Lubrication.

Pack sizes	Klüber Summit RHT 68	Klüber Summit RHT 100
Canister 20 l	+	+
Bucket 19 l		+
Drum 200 l	+	+
Drum 208 l	+	

Characteristics	Klüber Summit RHT 68	Klüber Summit RHT 100
Article number	050057	050159
Appearance	clear	clear
Colour space	colourless	yellow
Density, DIN 51757, 20°C	approx. 0.86 g/cm ³	approx. 0.87 g/cm ³
Flash point, DIN EN ISO 2592, Cleveland open cup	≥ 240 °C	≥ 240 °C
ISO viscosity grade, DIN ISO 3448, ISO VG	68	100
Kinematic viscosity, DIN EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 100°C	approx. 8.8 mm ² /s	approx. 11.7 mm ² /s
Kinematic viscosity, DIN EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 40°C	approx. 68 mm ² /s	approx. 100 mm ² /s
Viscosity index, DIN ISO 2909	≥ 90	≥ 90
Pour point, DIN ISO 3016	≤ -39 °C	≤ -30 °C
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	36 months	36 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.