

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.

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.

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

Product data	Klüber Summit RHT 68	Klüber Summit RHT 100
Article number	050057	050159
NSF-H2 registration	144 398	
Appearance	clear	clear
Colour space	colourless	yellow
Density, DIN 51757, 20 °C	approx. 0.86 g/cm ³	approx. 0.87 g/cm ³
Kinematic viscosity, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 40 °C	approx. 68 mm ² /s	approx. 100 mm ² /s
Kinematic viscosity, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 100 °C	approx. 8.8 mm ² /s	approx. 11.7 mm ² /s
Viscosity index, DIN ISO 2909	>= 90	>= 90
ISO viscosity grade, DIN ISO 3448	68	100
Pour point, DIN ISO 3016	<= -39 °C	<= -30 °C
Flash point, DIN EN ISO 2592, Cleveland, open-cup apparatus	>= 240 °C	>= 240 °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





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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.

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