

# Klüber Summit RPE 32, 68, 170

Synthetic refrigeration compressor oils



## Benefits for your application

- Good thermal stability with refrigerants R134a, R23, R404a, R407, R507 and other blends of HFC refrigerants
- Excellent chemical stability
- Good solubility and miscibility in refrigerant R134a
- Very good flow properties at low operating temperatures ensuring good oil return and lubricity to the compressor and preventing blockage or loss of heat transfer in the evaporator
- Excellent lubrication properties which help reduce wear and prevent leakage

## Description

Klüber Summit RPE series is based on selected polyol esters (POE). They have been designed for use in refrigeration compressors with chlorine-free HFC refrigerants. They have excellent chemical and thermal stability as well as superior lubricity characteristics with steel and aluminium.

## Application

Klüber Summit RPE lubricants are suitable for refrigeration compressors and chillers using R-134 A. They can also be used in context with R-12, R-13, R-22, R-23, R-401 A, R-401 B, R-402 A, R-402 B, R-404 A, R-407 C, R-410 A, R-500, R-502, R-503, R-507 and R-508 B.

When selecting a lubricant, always observe the compressor manufacturer's viscosity specifications.

## Application notes

Drain as much of the previously used compressor oil from the system as possible, making sure that the oil is drained while still warm. Afterwards clean or change the filters, then recharge with the operational Klüber Summit RPE series lubricant.

## Materials compatibility

Klüber Summit RPE series compressor lubricants have been designed to be compatible with materials such as NBR (acrylonitrile content > 36 %), SBR, CR, NR and MVQ. They are, however, considered to be incompatible with FPM (e.g. Viton), IIR, NBR (acrylonitrile content < 36 %), CSM and polyurethane.

## Storage notes

As polyol ester lubricants have a tendency to absorb moisture, exposure to air should be minimised and containers and compressors should be sealed tightly immediately after use.

In extreme cases, hydrolytic decomposition reactions can occur if excessive water content in the oil and extreme loads combine.

To prolong the life of the lubricant in an open can, purge can with nitrogen before closing.

## 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 Summit RPE 32	Klüber Summit RPE 68	Klüber Summit RPE 170
Canister 5 l	+	-	+
Canister 20 l	+	-	+
Drum 200 l	+	-	+



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Product data	Klüber Summit RPE 32	Klüber Summit RPE 68	Klüber Summit RPE 170
Article number	050047	050049	050107
Appearance	clear	clear	clear
Colour space	colourless	colourless	yellow
Density, DIN 51757, 20 °C	approx. 0.98 g/cm <sup>3</sup>	approx. 0.98 g/cm <sup>3</sup>	approx. 0.97 g/cm <sup>3</sup>
Kinematic viscosity, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 40 °C	approx. 32 mm <sup>2</sup> /s	approx. 68 mm <sup>2</sup> /s	approx. 163 mm <sup>2</sup> /s
Kinematic viscosity, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 100 °C	approx. 5.7 mm <sup>2</sup> /s	approx. 9.3 mm <sup>2</sup> /s	approx. 17 mm <sup>2</sup> /s
Viscosity index, DIN ISO 2909	>= 110	>= 110	>= 110
Flash point, DIN EN ISO 2592, Cleveland, open-cup apparatus	>= 250 °C	>= 250 °C	>= 230 °C
Pour point, DIN ISO 3016	<= -35 °C	<= -33 °C	<= -20 °C
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	60 months	60 months	60 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.

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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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