

Klübersynth HLR 46-371

Lubricating and assembly grease for elastomer/metal sliding material combinations (sensitive to mineral oil)



Benefits for your application

- Lubricating and assembly paste
- Service temperature range – 40 / 150 °C
- For elastomer/metal sliding material combinations

Description

Klübersynth HLR 46-371 is an adhesive, pliant and high-temperature resistant special lubricating grease. Due to the product composition (base oil: polyalkylene glycol oil; thickener: special lithium soap) it is possible to use it in context with many elastomers which are sensitive to mineral oil (particularly EPDM) and plastics.

Outstanding performance data:

- very wide service temperature range
- good corrosion protection
- good water resistance
- excellent oxidation stability

Application

Elastomer/metal or plastic/metal sliding material combinations, eg in car components

- brake boosters
- drum brakes

- disc brakes
- main brake cylinders
- ABS
- small gears (metal/plastic)
- rolling bearings with EPDM sealing disks
- radial shaft seals with EPDM elastomer

Application notes

Compatibility with elastomers and plastics: The following elastomers were tested 168 h for compatibility with Klübersynth HLR 46-371 at 100 and 150°C. We recommend checking the compatibility of the lubricating grease and the contacting material, especially prior to series applications (our test results were obtained with samples and are not a substitute for your own testing).

Material Time/test temperature	70 EPDM 281 168 h/150 °C	72 NBR 872 168 h/150 °C
Change in volume (%)	– 1.1	– 5.5
Change in hardness (SHA)	0	3
Tensile strength (%)	5	5
Elongation at tear (%)	– 4	– 15

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	Klübersynth HLR 46-371
Bucket 25 kg	+
Drum 180 kg	+



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Product data	Klübersynth HLR 46-371
Article number	012191
Chemical composition, type of oil	PAG
Chemical composition, thickener	special lithium soap
Lower service temperature	-40 °C / -40 °F
Upper service temperature	150 °C / 302 °F
Colour space	red
Texture	homogeneous
Texture	fibrous
Density at 20 °C	approx. 0.97 g/cm ³
Worked penetration, DIN ISO 2137, 25 °C, lower limit value	280 x 0.1 mm
Worked penetration, DIN ISO 2137, 25 °C, upper limit value	310 x 0.1 mm
Kinematic viscosity of the base oil, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 40 °C	approx. 363 mm ² /s
Kinematic viscosity of the base oil, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 100 °C	approx. 57.5 mm ² /s
Speed factor (n x dm)	approx. 300 000 mm/min
Corrosion inhibiting properties of lubricating greases, DIN 51802, (SKF-EMCOR), test duration: 1 week, distilled water	<= 1 corrosion degree
Drop point, DIN ISO 2176	>= 220 °C
Flow pressure of lubricating greases, DIN 51805, test temperature: -40 °C	<= 1 400 mbar
Water resistance, DIN 51807 pt. 01, 3 h/90 °C, rating	<= 1 - 90
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	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 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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