

# Klübersynth HLR 46-371

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



## Your benefits at a glance

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

## Your requirements - our solution

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	70 EPDM 281	72 NBR 872
	Time/test temperature	168 h/150 °C	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](http://www.klueber.com). You may also obtain them through your contact person at Klüber Lubrication.

Pack sizes	Klübersynth HLR 46-371
Can 1 kg	+
Bucket 18 kg	+
Bucket 25 kg	+
Drum 180 kg	+

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(sensitive to mineral oil)



Characteristics	Klübersynth HLR 46-371
Article number	012191
Composition, thickener	lithium complex soap
Composition, type of oil	polyalkylenglycol
Colour space	red
Texture	fibrous , homogeneous
Service temperature, lower limit	-40 °C
Service temperature, upper limit	150 °C
Density, Klüber method: PN 024, 20°C	approx. 0.97 g/cm <sup>3</sup>
Worked penetration, DIN ISO 2137 / ASTM D217, 25°C, lower limit	280 0.1 mm
Worked penetration, DIN ISO 2137 / ASTM D217, 25°C, upper limit	310 0.1 mm
Kinematic viscosity of the base oil, DIN EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 100°C	approx. 57.5 mm <sup>2</sup> /s
Kinematic viscosity of the base oil, DIN EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 40°C	approx. 363 mm <sup>2</sup> /s
SKF-EMCOR, DIN 51802, Klüber method: distilled water, 168 h	≤ 1 corrosion degree
Flow pressure, DIN 51805-2, -40°C	≤ 1400 mbar
Dropping point, DIN ISO 2176 / IP 396	≥ 220 °C
Speed factor (n x dm)	approx. 300000 mm/min
Water resistance, DIN 51807-1, 3 h, 90°C	≤ 1 - 90 rating
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 90 years.

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