

# Klüberalfa BHR 53-402

High-temperature long-term lubricating grease



## Your benefits at a glance

- **Higher equipment availability and reduced maintenance at very high operating temperatures up to 260 °C**
  - due to good corrosion protection
  - due to improved wear protection
- **Cost-efficient and eco-friendly product**
  - due to lifetime lubrication
  - as equipment can be cleaned without use of fluorine-containing solvent

## Your requirements - our solution

You are looking for a rolling bearing grease offering good corrosion and wear protection for use also at high temperatures?

Klüberalfa BHR 53-402 is a high-temperature long-term grease based on perfluorinated polyether oils. Due to its special thickener, it can be removed from components without the use of fluorine-containing solvents.

Klüberalfa BHR 53-402 is neutral towards plastics and elastomers and can thus be used with a variety of materials.

## Application

Preferred applications are in rolling bearings with lifetime or long-term lubrication which are subject to very high temperatures:

- conveyor systems, e.g. load, guide or return rollers and crossbar plain bearings
- ceramics or brick manufacturing, e.g. bearings of kiln carts (carrying wheels)
- electric motors, fans

General behaviour towards elastomers and plastics

Greases based on perfluorinated polyether oils are generally regarded as neutral towards elastomers and plastics (possible exception: highly fluorinated rubber). Nevertheless we recommend testing compatibility with the material to be used, especially prior to series application.

## Application notes

Klüberalfa BHR 53-402 can be applied with a grease metering gun or automatic metering devices for small quantities.

Anticorrosion agents have to be removed from the friction points prior to initial lubrication to ensure optimum lubricant adhesion. Klüberalfa BHR 53-402 can be mixed with lubricants based on PFPE.

Klüberalfa BHR 53-402 (e.g. used grease in rolling bearings) can be removed with water-miscible neutral cleaning agents.

If you wish to optimise equipment life or have any other queries regarding product application, our experts will be pleased to advise you.

## 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

Can 1 kg

### Klüberalfa BHR 53-402

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High-temperature long-term lubricating grease

Product data	Klüberalfa BHR 53-402
Article number	090070
Chemical composition, type of oil	PFPE
Chemical composition, thickener	sodium soap
Lower service temperature	-40 °C / -40 °F
Upper service temperature	260 °C / 500 °F
Colour space	white
Density at 20 °C	approx. 1.82 g/cm <sup>3</sup>
NLGI grade, DIN 51818	2
Worked penetration, DIN ISO 2137, 25 °C, lower limit value	265 x 0.1 mm
Worked penetration, DIN ISO 2137, 25 °C, upper limit value	295 x 0.1 mm
Kinematic viscosity of the base oil, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 40 °C	approx. 420 mm <sup>2</sup> /s
Kinematic viscosity of the base oil, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 100 °C	approx. 40 mm <sup>2</sup> /s
Flow pressure of lubricating greases, DIN 51805, test temperature: -40 °C	<= 1 400 mbar
Speed factor (n x dm)	approx. 300 000 mm/min
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	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.

**Klüber Lubrication München SE & 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.

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