

Klübersynth BR 46-82

Low and high-temperature grease for drive-by-wire technology in the automotive sector



Benefits for your application

- Low-cost alternative to greases based on perfluorinated oils for high-temperature applications
- Reliable operation over a wide temperature range
- Lifetime lubrication also at permanent high temperatures
- Good wear protection in steel-steel material pairings allowing reliable component operation

Description

Klübersynth BR 46-82 consists of a mixture of polyglycol and ester oil and a lithium complex soap with good media resistance. Due to the low viscosity of the base oil, components run smoothly also at low temperature. The lubricant also contains highly effective antiwear additives. The base oil can be mixed with brake fluid DOT 3, DOT 4 and DOT 5.1. It is compatible with EPDM elastomer materials. It should be noted that elastomers supplied by one or different manufacturers may perform differently in practice. Consequently, a general compatibility with the materials used cannot be assumed and must be checked individually.

Application

Klübersynth BR 46-82 is a special grease development for the long-term lubrication of automotive brake system components. The product ensures problem-free operation at temperatures from -40 °C to +180 °C, with short-term peaks up to 250 °C. For the development of this new lubricant, the special requirements of drive-by-wire technology were taken into account, e.g. operation in ball screws, vertically mounted rolling bearings and

drive gears. As a result, lubrication of several points in a module can be accommodated via the application of a single grease type.

Application notes

The lubricant is applied by spatula, brush or grease gun. If automatic lubrication systems are to be used, please check pumpability beforehand. We suggest compatibility checks be undertaken with contact materials in particular prior to series application.

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 BR 46-82
Can 1 kg	+
Bucket 25 kg	+

Product data	Klübersynth BR 46-82
Article number	012033
Chemical composition, thickener	special lithium soap
Chemical composition, type of oil	PAG
Chemical composition, type of oil	ester oil
Lower service temperature	-40 °C / -40 °F
Upper service temperature	180 °C / 356 °F
Service temperature, rolling bearings, acc. to DIN 51825	approx. 140 °C
Colour space	beige



Klübersynth BR 46-82

Low and high-temperature grease for drive-by-wire technology in the automotive sector

Product data	Klübersynth BR 46-82
Density at 20 °C	approx. 1.00 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. 82 mm ² /s
Kinematic viscosity of the base oil, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 100 °C	approx. 13 mm ² /s
Speed factor (n x dm)	approx. 1 000 000 mm/min
Corrosion inhibiting properties of lubricating greases, DIN 51802, (SKF-EMCOR), test duration: 1 week, distilled water	0 corrosion degree
Copper corrosion, DIN 51811, (lubricating grease), 24h/100°C	1 - 100 corrosion degree
Drop point, DIN ISO 2176	>= 250 °C
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.

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.

Publisher and Copyright: Klüber Lubrication München SE & Co. KG. Reprints, total or in part, are permitted only prior consultation with Klüber Lubrication München SE & Co. KG and if source is indicated and voucher copy is forwarded.