

Klüberlub BE 41-1501

Heavy-duty grease for highly-loaded rolling bearings operating at low speeds



Your benefits at a glance

- Excellent wear protection under the highest dynamic load conditions
- Good load-carrying capacity at low rotational speeds
- Reliable lubricant film formation at high service temperatures
- Emergency lubricating properties due to the addition of special solid lubricants

Your requirements - our solution

Would you like to increase the service life of your highly-loaded rolling bearings running at low speed? Do you need a lubricant for a wide service temperature range?

Klüberlub BE 41-1501 is designed to meet the requirements of rolling bearings subject to extreme conditions. The appropriate combination of base oil and additives enables improved wear protection.

FAG FE 8 tests have confirmed the effectiveness of Klüberlub BE 41-1501 under these conditions and it is approved by various bearing manufacturers, e.g. FAG, to be used for applications in low-speed rolling bearings subject to very high loads and shocks, for example in roller presses and bowl mill crushers.

If the lubricating film becomes adversely stressed under extreme conditions, e.g. during high levels of oscillation and friction, the solid lubricants MoS₂ and graphite contained in Klüberlub BE 41-1501 ensure excellent emergency lubricating properties providing additional reliability in the event of starved lubrication. The product also provides good corrosion protection and is compatible with seals, e.g. made of NBR elastomers. Klüberlub BE 41-1501 is approved by leading component OEMs, e.g. Flender and David Brown.

Please do not hesitate to contact our experts regarding the demands in your own application.

Application

Klüberlub BE 41-1501 was developed for highly-loaded large rolling bearings running at low speeds as well as toothed gear systems

such as industrial and rail traction gear couplings.

Typical applications and requirements include: spherical roller bearings in roller presses, bowl mill crushers and rotary crushers in the mining and base materials industries.

The operating conditions of roller bearings require use of a heavy-duty grease with high base oil viscosity with suitability for the following conditions:

- low speed, $n = 10-30$ rpm
- high load, $P/C = 0.25 - 0.50$
- bearing temperature approx. $50-70$ °C
- shock loading and vibration

Owing to its excellent lubricating properties, Klüberlub BE 41-1501 can also be used successfully for the lubrication of pivoting bearings, plain bearings and industrial gear couplings.

Application notes

When using Klüberlub BE 41-1501 with automatic grease pumps, the ambient temperature should be ≥ 15 °C.

Klüberlub BE 41-1501 has been tested and verified for use with selected plastics and elastomers, however, we recommend checking compatibility prior to series application to ensure reliable equipment operation.

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.

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Pack sizes	Klüberlub BE 41-1501
Cartridge 400 g	+
Bucket 5 kg	+
Bucket 18 kg	+
Bucket 25 kg	+
Drum 180 kg	+

Characteristics	Klüberlub BE 41-1501
Article number	097115
Composition, thickener	lithium complex soap
Colour space	black
Texture	homogeneous , long fibrous
Service temperature, lower limit	-10 °C
Service temperature, upper limit	150 °C
Density, Klüber method: PN 024, 20°C	approx. 0.92 g/cm ³
NLGI grade, DIN 51818	1
Worked penetration, DIN ISO 2137 / ASTM D217, 25°C, lower limit	310 0.1 mm
Worked penetration, DIN ISO 2137 / ASTM D217, 25°C, upper limit	340 0.1 mm
Kinematic viscosity of the base oil, DIN EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 100°C	approx. 60 mm ² /s
Kinematic viscosity of the base oil, DIN EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 40°C	approx. 1500 mm ² /s
SKF-EMCOR, DIN 51802, Klüber method: distilled water, 168 h	≤ 1 corrosion degree
Flow pressure, DIN 51805-2, -10°C	≤ 1400 mbar
Dropping point, DIN ISO 2176 / IP 396	≥ 180 °C
FAG FE9 rolling bearing test, DIN 51821-2, based on standard, 1500 / 3000-150, service life F50	≥ 100 h
Speed factor (n x dm)	approx. 100000 mm/min
Compatibility with elastomers, change in Shore A hardness, DIN ISO 7619-1, based on standard, 168 h, 100°C, 72 NBR 902	approx. -5 unit
Compatibility with elastomers, change in volume, DIN ISO 1817, 168 h, 100°C, 72 NBR 902	< 10 %
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	36 months

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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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