

Klübersynth BEM 44-4600

Fully synthetic high-performance fluid grease for a wide service temperature range



Your benefits at a glance

- Excellent scuffing resistance similar to that of a gear oil
- Special additives ensure excellent wear protection of gear teeth and bearings
- Better sealing effect than with gear oils
- Wide service temperature range due to modern fully-synthetic base oil

Your requirements - our solution

Do you operate low-speed gearboxes and bearings under demanding conditions, e.g. strong vibrations, low or constantly changing ambient temperatures? Often those applications are located where maintenance is complicated and its reduction to a minimum is therefore desirable.

Klübersynth BEM 44-4600 is a modern high-performance fluid grease based on a high-viscosity synthetic hydrocarbon oil and a special lithium soap, which opens up new possibilities for ensuring a reliable operation of your installations.

Carefully selected additives provide Klübersynth BEM 44-4600 with an exceptional scuffing resistance. Klübersynth BEM 44-4600 has passed both the scuffing load test acc. to DIN ISO 14635-3 for fluid gear greases and the standard scuffing test acc. to DIN ISO 14635-1 for gear oils with top ratings. Klübersynth BEM 44-4600 protects your components reliably against wear, even when subjected to oscillating movements.

When switching from a conventional gear oil to Klübersynth BEM 44-4600 maintenance works to replace seals are reduced to a minimum. Here, Klübersynth BEM 44-4600 offers you a high operational reliability and significant cost reduction.

It is very resistant to oxidation at high temperatures and is also suitable for low temperatures.

Application

Your technical challenges may be found in general industrial equipment, machine tools, heavy industry equipment (mining and cement), robotics, chemical and agricultural machinery.

Examples are:

- Crushers, vertical roller mills, hammer mills
- Mobile drilling equipment
- Cranes, e.g. harbour or mining
- Mixer and reactor drives
- Harvesting machines
- Conveyor belt drives

Application notes

You can apply Klübersynth BEM 44-4600 by an automatic lubrication system or via an automatic single-point lubrication system. If you wish to optimise the service life of your equipment or have any other questions regarding your application, our experts will be pleased to help you with application-specific advice.

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 BEM 44-4600
Can 1 kg	+
Bucket 25 kg	+

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Characteristics	Klübersynth BEM 44-4600
Article number	004319
Composition, thickener	lithium complex soap
Composition, type of oil	synthetic hydrocarbon oil
Colour space	beige
Texture	homogeneous
Service temperature, lower limit	-50 °C
Service temperature, upper limit	140 °C
Density, Klüber method: PN 024, 20°C	approx. 0.86 g/cm ³
Worked penetration, DIN ISO 2137 / ASTM D217, 25°C, lower limit	400 0.1 mm
Worked penetration, DIN ISO 2137 / ASTM D217, 25°C, upper limit	430 0.1 mm
Kinematic viscosity of the base oil, DIN EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 100°C	approx. 56 mm ² /s
Kinematic viscosity of the base oil, DIN EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 40°C	approx. 500 mm ² /s
Viscosity index, DIN ISO 2909, base oil	approx. 180
Copper corrosion, ASTM D4048, based on standard, 24 h, 100°C	1 - 100 - 24 corrosion degree
SKF-EMCOR, DIN 51802, Klüber method: distilled water, 168 h	≤ 1 corrosion degree
Flow pressure, DIN 51805-2, -50°C	≤ 1400 mbar
Dropping point, DIN ISO 2176 / IP 396	≥ 180 °C
Antibrinelling test, Klüber method: 24 Hz / 8000 N / ±3°, equipment: SNR FEB 2, 50 h, 20°C, wear	approx. 0 mg
Four-ball tester: wear characteristics, ASTM D2266, based on standard, 1200 min ⁻¹ / 40 kgf, 60 min, 75°C, wear scar diameter	≤ 0.6 mm
Four-ball tester, welding load, ASTM D2596	≥ 250 kgf
FZG scuffing test, DIN ISO 14635-1, A / 8.3 / 90, failure load stage	> 13
FZG scuffing test, DIN ISO 14635-3, A / 2.8 / 50, failure load stage	> 12
FZG wear test, DGMK 377-01, based on standard, C / 0.05:0.57 / room temperature / 12, wear category	low
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	24 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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