

### Klübersynth GE 46-1200

Synthetic long-term fluid grease with excellent anticorrosive effect

#### Your benefits at a glance

- Reliable lubricant film formation in a wide service temperature range
- Good wear protection and high pressure absorption capacity
- Optimised friction behaviour leading to higher efficiency
- Good seal life due to excellent compatibility
- Excellent backflow to the friction point
- Excellent ageing and oxidation resistance for long service life

#### Your requirements — our solution

Small gear systems demand high efficiency and a lubricant with a wide temperature range along with a long service life.

Our fully synthetic long-term fluid gear grease Klübersynth GE 46-1200 based on a polyglycol base oil and a lithium soap thickener was especially developed to meet the tough requirements of advanced small gears.

The combination of base oil and additives offers optimised wear protection under mixed friction and good pressure absorption capacity in the lubrication of gears. Klübersynth GE 46-1200 also offers excellent corrosion protection and good compatibility with sealing elastomers. The consistency of this fluid grease has been tuned to enable excellent backflow and hence a constant supply to the friction point.

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

#### Application

We developed Klübersynth GE 46-1200 on the basis of our long experience in the lubrication of spur, bevel and worm gears. Especially for steel/steel combinations, for example in small and miniature gears, gear motors and power tool gears, Klübersynth

Compatibility with elastomers 72 NBR 902, 100 °C, 168 hrs:	
Change in volume [%]	< = 3
Change in hardness [Shore A] approx	approx. –3

#### 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. GE 46-1200 offers outstanding performance characteristics. Medium peripheral speeds of 4-5 m/s can be effectively handled by this grease. It also provides vibration and noise damping. Klübersynth GE 46-1200 can also be used to optimise the lubrication of ball and roller guides, plain and rolling bearings, and toothed couplings from – 30 to 120 °C. It may even be applied at extreme temperatures down to -50 °C since Klübersynth GE 46-1200 will build up a load-carrying lubricant film at these low temperature conditions.

### Application notes

We developed Klübersynth GE 46-1200 on the basis of our long experience in the lubrication of spur, bevel and worm gears. Especially for steel/steel combinations, for example in small and miniature gears, gear motors and power tool gears, Klübersynth GE 46-1200 offers outstanding performance characteristics. Medium peripheral speeds of 4-5 m/s can be effectively handled by this grease. It also provides vibration and noise damping. Klübersynth GE 46-1200 can also be used to optimise the lubrication of ball and roller guides, plain and rolling bearings, and toothed couplings from – 30 to 120 °C.

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Pack sizes	Klübersynth GE 46-1200
Cartridge 400 g	+
Can 1 kg	+
Bucket 25 kg	+
Drum 180 kg	+

Product data	Klübersynth GE 46-1200
Article number	027035
NLGI grade, DIN 51818	00
Colour space	brown
Texture	homogeneous
Density at 20 °C	approx. 0.99 g/cm <sup>3</sup>
Worked penetration, DIN ISO 2137, 25 °C, lower limit value	400 x 0.1 mm
Worked penetration, DIN ISO 2137, 25 °C, upper limit value	430 x 0.1 mm
Kinematic viscosity of the base oil, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 40 °C	approx. 120 mm <sup>2</sup> /s
Kinematic viscosity of the base oil, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 100 °C	approx. 20 mm <sup>2</sup> /s
Shear viscosity at 25 °C, shear rate 300 s-1; equipment:rotational viscometer	<= 2 000 mPas
Copper corrosion, DIN 51811, (lubricating grease), 24h/100°C	1 - 100 corrosion degree
FZG scuffing test, DIN ISO 14635-1, A/8.3/90, change in weight	< 0.2 mg/kWh
FZG scuffing test, DIN ISO 14635-1, A/8.3/90, scuffing load stage	> 12
Drop point, DIN ISO 2176, IP 396	>= 160 °C
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	24 months



Product information



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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 80 years.

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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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