

Klüberail AL 32-2000

Sprayable, rapidly biodegradable lubricant for railway switches



Benefits for your application

- **Trouble-free operation due to low friction resistance also at very low ambient temperatures**
- **Good UV resistance prevents rapid gumming of the applied lubricant after long exposure to sunlight**
- **Sprayable by means of standard portable spraying equipment**
- **Low operating costs due to considerably lower lubricant consumption and less manpower for relubrication**
- **Eco-compatible due to rapid biodegradability**

Description

Klüberail AL 32-2000 is a synthetic, rapidly biodegradable special lubricant for railway switches.

Acc. to the OECD 301 F test, the product is readily biodegradable ($\geq 60\%$ after 28 days).

Due to its liquid texture, the lubricant can be sprayed by means of portable lubrication equipment, enabling an extremely good and economical distribution. As Klüberail AL 32-2000 offers good wear protection and is resistant to washout by rain, lubrication intervals can be extended.

The product is effectively protected against UV light, which prevents rapid gumming in sunlight and hence an increase of switch setting forces.

Application

Klüberail AL 32-2000 was developed for the lubrication of railway switch slide plates where it might drip off and pose a hazard to the environment.

In addition, Klüberail AL 32-2000 is intended for applications requiring a rapidly biodegradable lubricant with a liquid texture, for example on slideways or chains.

Application notes

Klüberail AL 32-2000 is applied by spraying equipment or brush. Application via portable spraying devices is also possible at temperatures below 0 °C. Avoid mixture with water when filling the product.

Relubrication intervals depend on ambient conditions, rain/snow and the frequency with which the switches are set.

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	Klüberail AL 32-2000
Canister 10 l	+

Product data	Klüberail AL 32-2000
Article number	009020
Lower service temperature	-35 °C / -31 °F
Upper service temperature	80 °C / 176 °F
Colour space	brown
Texture	liquid
Density at 20 °C	approx. 0.96 g/cm ³
Runout time, DIN EN ISO 2431, with flow cups, 5 mm nozzle	approx. 60 s
Test of the anticorrosive properties of lubricants on steel in presence of water, KL PA-060, stirring method A, steel 4 h/80 °C (based on the withdrawn standard DIN 51355)	≤ 1 corrosion degree



Klüberail AL 32-2000

Sprayable, rapidly biodegradable lubricant for railway switches

Product data	Klüberail AL 32-2000
Four-ball tester, wear factor, DIN 51350 pt. 05, 1 h/400 N, wear scar diameter	≤ 0.6 mm
Biodegradability according to OECD 301 F, (within 28 days)	≥ 60 %
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	12 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.