

# Klüberlub LM 41-32 N und LM 41-102

Low-temperature greases for slides and small gears



## Benefits for your application

- **Good low-temperature properties**
- **Self-locking effect in worm gears**
- **Good corrosion protection**
- **Pumpable through centralized lubrication equipment**

## Description

Klüberlub LM 41-32 N and Klüberlub LM 41-102 are special greases based on mineral oil and a lithium soap thickener. Due to their low base oil viscosity Klüberlub LM 41-32 N and Klüberlub LM 41-102 are suitable for temperatures down to  $-40^{\circ}\text{C}$ .

## Application

Klüberlub LM 41-32 N and Klüberlub LM 41-102 have been designed especially for worm gears where a "self-locking" effect is desired. On the Tannert sliding friction test rig Klüberlub EM 41-102 shows a higher self-locking effect due to its higher base oil viscosity. Test results obtained with steel/POM material combinations can be requested at the Klüber Business Unit Automotive Engineering.

Klüberlub LM 41-32 N and Klüberlub LM 41-102 are used for small gears in the automotive industry, e.g. in window lifters, sun roof and seat adjustment or for slides, lumbar adjustment, steering columns and central locking mechanisms. Both greases are suitable for steel/plastic material combinations.

## Application notes

Klüberlub LM 41-32 N and Klüberlub LM 41-102 can be applied by brush, spatula, conventional metering systems or via centralized lubrication equipment<sup>1</sup>.

## Minimum shelf life

The minimum shelf life is approx. 24 months if the product is stored in its unopened original container in a dry, frost-free place.

## Material safety data sheets

Material safety data sheets can be downloaded or requested via our website [www.klueber.com](http://www.klueber.com). You may also obtain them through your contact person at Klüber Lubrication.

Pack sizes	Klüberlub LM 41- 32 N	Klüberlub LM 41-102
Bucket 25 kg	+	+
Drum 180 kg	+	+

<sup>1</sup>: The product is normally suitable for central lubricating systems. Please note, however, that due to different system configurations and application conditions the pumpability of the product has to be confirmed with the system manufacturer for each individual application. We will be pleased to provide assistance in this matter.



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Product data	Klüberlub LM 41- 32 N	Klüberlub LM 41-102
Article number	020186	020298
Appearance	almost transparent	almost transparent
Upper service temperature	120 °C / 248 °F	120 °C / 248 °F
Lower service temperature	-40 °C / -40 °F	-40 °C / -40 °F
Worked penetration, acc. to Klein, 25 °C, upper limit value	300 0,1 mm	300 0,1 mm
Worked penetration, acc. to Klein, 25 °C, lower limit value	270 0,1 mm	270 0,1 mm
Kinematic viscosity of the base oil, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 40 °C	approx. 30 mm <sup>2</sup> /s	approx. 100 mm <sup>2</sup> /s
Kinematic viscosity, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 100 °C	approx. 4.5 mm <sup>2</sup> /s	approx. 9 mm <sup>2</sup> /s
Copper corrosion, DIN 51811, (lubricating grease), 24h/100°C	1 - 100 corrosion degree	1 - 100 corrosion degree
Drop point, DIN ISO 2176	>= 170 °C	> 170 °C
Colour space	beige	beige
Density at 20 °C	approx. 0.9 g/cm <sup>3</sup>	approx. 0.9 g/cm <sup>3</sup>
Flow pressure of lubricating greases, DIN 51805, test temperature: -40 °C	<= 600 mbar	<= 1 600 mbar
Texture	homogeneous	homogeneous
Texture	short-fibred	short-fibred

## Fußnote Application notes

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configurations and application conditions the pumpability of the product has to be confirmed with the system manufacturer for each individual application. We will be pleased to provide assistance in this matter.

## 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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