

# Klübertemp HM 83

High-temperature long-term greases



## Benefits for your application

- **High plant availability and reduced maintenance**
  - in case of very high operating temperatures up to 260 °C
  - when exposed to aggressive chemical and vapours
- **Good compatibility with most plastics and elastomers**

## Description

Klübertemp HM greases are long-term lubricating greases based on perfluoropolyether oil and PTFE which has been specifically designed for high-temperature lubrication. Owing to the base oil viscosity and the high load-carrying capacity, Klübertemp HM greases are particularly suitable for the initial and relubrication of medium-speed rolling bearings subject to high temperatures and loads.

## Application

Klübertemp HM greases have proven effective for lubrication points requiring regular maintenance at temperatures up to 260 °C. Klübertemp HM greases contribute to reliable machine operation in many industries as they are available in three consistency grades which make them suitable for a wide range of applications.

Typical applications are:

- Conveyors
- Corrugating machines
- Plastics industry
- Textile industry
- Printing industry.

Klübertemp HM greases are listed in the maintenance and lubrication charts of many leading manufacturers.

## Compatibility with plastics and elastomers

Lubricating greases based on fluorinated polyether oils and PTFE are generally regarded as neutral towards elastomers and plastics (with the exception of perfluorinated rubber). Nevertheless compatibility with the materials should be tested, especially prior to series application.

## Application notes

For optimum lubrication results, we recommend cleaning the friction points first with white spirit 180/210 and then with Klüberalfa XZ 3-1. For initial lubrication, the friction points must be clean and bright (i.e. free from oil, grease or perspiration) and free from contaminants. The various technical sales departments at Klüber Lubrication may be contacted at any time to ensure optimum results with this special lubricating grease.

## Material safety data sheets

Material safety data sheets can be 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	Klübertemp HM 83-401	Klübertemp HM 83-402	Klübertemp HM 83-403
Can 1 kg	+	-	+
Cartridge 800 g	+	-	+
Bucket 10 kg	+	-	+
Bucket 30 kg	-	+	-

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Product data	Klübertemp HM 83-401	Klübertemp HM 83-402	Klübertemp HM 83-403
Article number	090090	090081	090163
Chemical composition, type of oil	PFPE	PFPE	PFPE
Chemical composition, solid lubricant	PTFE	PTFE	PTFE
Lower service temperature	-40 °C / -40 °F	-30 °C / -22 °F	-30 °C / -22 °F
Upper service temperature	260 °C / 500 °F	260 °C / 500 °F	260 °C / 500 °F
Colour space	white	white	white
Density at 20 °C	approx. 1.95 g/cm <sup>3</sup>	approx. 1.96 g/cm <sup>3</sup>	approx. 1.96 g/cm <sup>3</sup>
Kinematic viscosity of the base oil, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 40 °C	approx. 420 mm <sup>2</sup> /s	approx. 420 mm <sup>2</sup> /s	approx. 400 mm <sup>2</sup> /s
Kinematic viscosity of the base oil, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 100 °C	approx. 40 mm <sup>2</sup> /s	approx. 40 mm <sup>2</sup> /s	approx. 40 mm <sup>2</sup> /s
NLGI grade, DIN 51818	1	2	3
Shear viscosity at 25 °C, shear rate 300 s <sup>-1</sup> , equipment: rotational viscometer, lower limit value	4 000 mPas	7 000 mPas	11 000 mPas
Shear viscosity at 25 °C, shear rate 300 s <sup>-1</sup> , equipment: rotational viscometer, upper limit value	8 000 mPas	13 000 mPas	17 000 mPas
Corrosion inhibiting properties of lubricating greases, DIN 51802, (SKF-EMCOR), test duration: 1 week, distilled water	<= 1 corrosion degree	<= 1 corrosion degree	<= 1 corrosion degree
Flow pressure of lubricating greases, DIN 51805, test temperature: -30 °C		<= 1 400 mbar	<= 1 400 mbar
Flow pressure of lubricating greases, DIN 51805, test temperature: -40 °C	<= 1 400 mbar		
Four-ball tester, welding load, DIN 51350 pt. 04	>= 7 000 N	>= 8 000 N	>= 8 000 N
Speed factor (n x dm)			approx. 300 000 mm/min
Water resistance, DIN 51807 pt. 01, 3 h/90 °C, rating		0 - 90	0 - 90
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	60 months	60 months	60 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 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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