

# BARRIERTA KM 192, KL 092

High-temperature and long-term lubricants with good resistance to low temperatures



## Benefits for your application

- **Long component life**
  - over a wide service temperature range
  - when exposed to aggressive chemical agents
  - due to a long calculated grease life
- **Improved component performance**
  - due to low starting torques even at low temperatures
  - due to resistance to high speeds
  - due to friction values being largely independent of temperature

## Description

BARRIERTA is Europe's oldest high-quality brand of high-temperature lubricants based on perfluorinated polyether oil (PFPE). Today the name of BARRIERTA is widely regarded as synonymous with long-term stability and thermal resistance. BARRIERTA greases are the first choice of lubrication experts in many sectors worldwide. BARRIERTA K greases enable long-term use under high temperatures and influence of media, while at the same time requiring low running torques at low temperatures. This was made possible by Klüber's careful selection of raw materials and the specifically developed thickener.

## Application

### Rolling bearings and guideways

BARRIERTA K greases are highly suitable for the long-term lubrication of rolling and plain bearings, where only low driving power is available and where long-term stability is required under changing environmental loads. Even at extremely low temperatures, BARRIERTA K greases are soft enough so as not to overload low-power drive units, while on the other hand they withstand temperatures as high as 200°C and beyond. BARRIERTA K greases are used for a wide range of applications as for-life lubricants in automotive, electrical and precision engineering.

### Valves and seals

The BARRIERTA K greases good temperature resistance and their compatibility with plastics and elastomers – which is typical of PFPE lubricants – make them highly suitable for the lubrication of engine valves and seals as are found in hydraulic cylinders. BARRIERTA K greases enable long runtimes with

low noise generation and low friction coefficients. The resistance of BARRIERTA KM 192 against brake fluids, type DOT 3, 4, 5 and 5.1, has been confirmed in an individual test.

### Compatibility with elastomers and plastics

BARRIERTA K grease stand out for their neutral behaviour towards elastomers and plastics. Owing to the many different varieties of elastomers and plastics and varying operating conditions, we recommend checking their compatibility with the component material prior to series application.

## Application notes

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

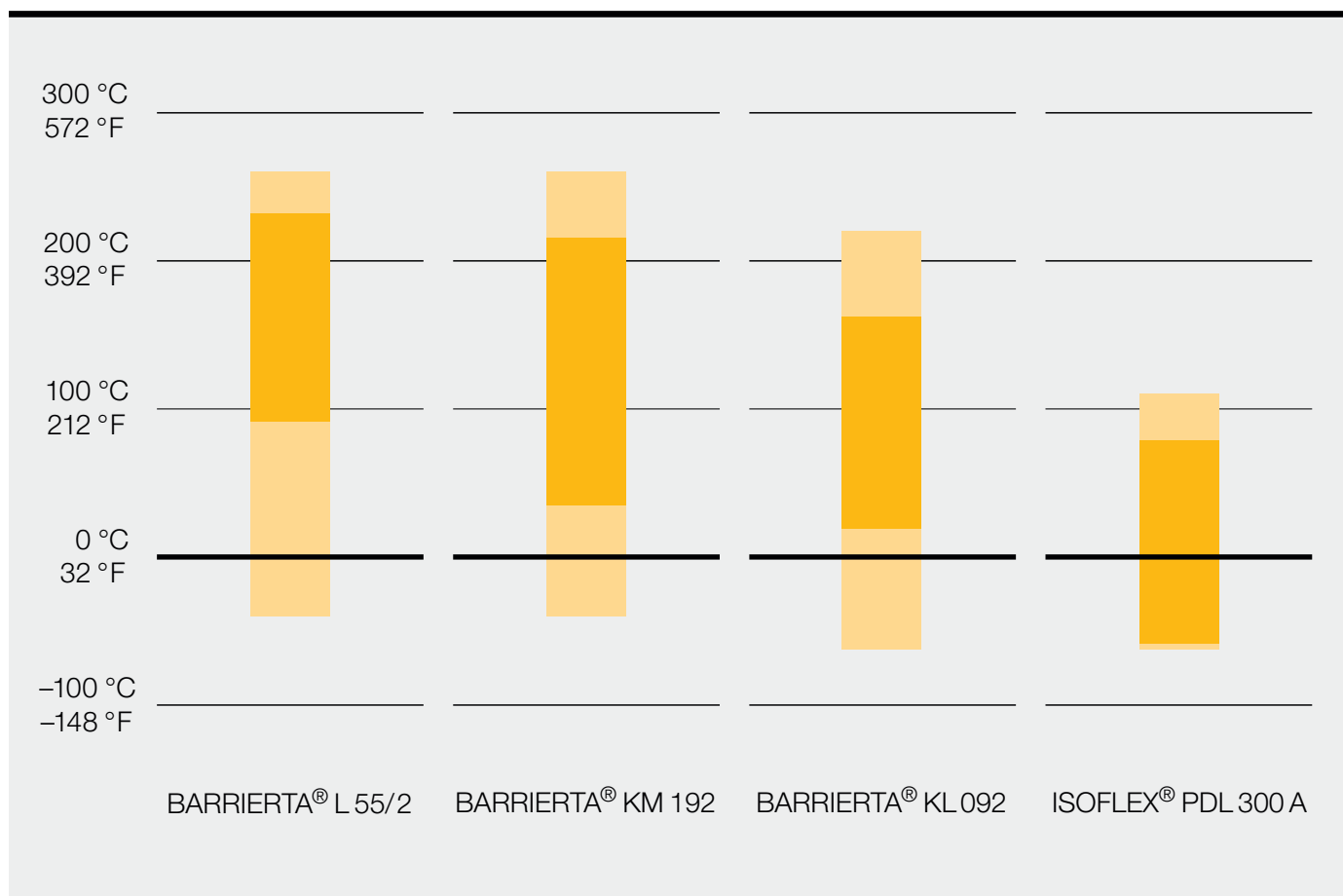
## Material safety data sheets

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.

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Service and optimum operating temperature range of BARRIERTA K greases in comparison with designated high and low-temperature lubricants



Pack sizes	BARRIERTA KM 192	BARRIERTA KL 092
Can 1 kg	+	+

Product data	BARRIERTA KM 192	BARRIERTA KL 092
Article number	090122	090123
Chemical composition, type of oil	PFPE	PFPE
Chemical composition, solid lubricant	PTFE	PTFE
Lower service temperature	-50 °C / -58 °F	-65 °C / -85 °F
Upper service temperature	260 °C / 500 °F	220 °C / 428 °F
Density at 20 °C	approx. 1.90 g/cm <sup>3</sup>	approx. 1.94 g/cm <sup>3</sup>
NLGI grade, DIN 51818	2	2



Product data	BARRIERTA KM 192	BARRIERTA KL 092
Shear viscosity at 25 °C, shear rate 300 s <sup>-1</sup> , equipment: rotational viscometer, lower limit value	4 000 mPas	3 000 mPas
Shear viscosity at 25°C, shear rate 300 s <sup>-1</sup> , equipment:rotational viscometer, upper limit value	8 000 mPas	6 000 mPas
Kinematic viscosity of the base oil, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 40 °C	approx. 190 mm <sup>2</sup> /s	approx. 90 mm <sup>2</sup> /s
Kinematic viscosity of the base oil, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 100 °C	approx. 34 mm <sup>2</sup> /s	approx. 26 mm <sup>2</sup> /s
Corrosion inhibiting properties of lubricating greases, DIN 51802, (SKF-EMCOR), test duration: 1 week, distilled water	<= 1 corrosion degree	<= 1 corrosion degree
Flow pressure of lubricating greases, DIN 51805, test temperature: -50 °C	<= 1 400 mbar	
Flow pressure of lubricating greases, DIN 51805, test temperature: -60 °C		<= 1 400 mbar
Low-temperature torque, IP 186, - 60 °C, start		<= 1 000 mNm
Low-temperature torque, IP 186, -60 °C, running		<= 100 mNm
Low-temperature torque, IP 186, -40 °C, start	<= 1 000 mNm	
Low-temperature torque, IP 186, -40 °C, running	<= 100 mNm	
Speed factor (n x dm)	approx. 600 000 mm/ min	300 000 mm/min
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



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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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