BARRIERTA I

High-temperature greases with good long-term characteristics

Your benefits at a glance

- Long-term availability and service life of components
  - over a wide service temperature range up to 260°C
  - when exposed to aggressive chemical agents and vapours
  - when using sensitive plastic materials
- Tried and tested over many years in numerous industries and component types
  - due to BARRIERTA base oils, which are made specifically to enable long-term stability
  - backed by a large number of approvals and references
  - due to availability in 4 different viscosity grades to suit various applications

Your requirements - our solution

BARRIERTA is Europe's oldest high-quality brand of high-temperature lubricants based on perfluorinated polyether oil (PFPE).

BARRIERTA products are among the most widely used PFPE lubricants today.

High-temperature greases of the BARRIERTA I series are made using particularly fine PTFE thickeners and have an oil content that is unusually high for this type of grease.

To suit various application purposes, BARRIERTA I greases are available in four different viscosities.

Application

Rolling and plain bearings operating at elevated temperature

BARRIERTA I greases attain long service lives when used in rolling and plain bearings operating under high thermal stress.

The fine thickener and the high oil content enable smooth running of bearings also at high speeds and ensure a long life of the lubricated components.

Typical fields of application are in

- film stretchers
- textile stenter frames
- precision engineering
- clean-room engineering (e.g. microchip manufacture)

The low vapour pressures of BARRIERTA I greases make them also recommendable for use in fine to ultra-high vacuum.

Electrical contacts

BARRIERTA I EL-102 and BARRIERTA I MI-202 have proven successful for the long-term lubrication of electrical contacts in high and medium-voltage switchboards. Component tests have shown that plug and unplug forces are consistent without unduly influencing transition resistance. There are no known decomposition products that would have an insulating effect on the contacts.

Behaviour towards plastics and elastomers

BARRIERTA I greases of all viscosity grades are widely neutral towards elastomers and plastics (possible exception: highly fluorinated 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 with white spirit 180/210 and then Klüberalfa XZ 3-1. For initial lubrication, the friction point must be clean and bright and free from particles.

To ensure maximum service life, please contact our technical sales staff.

Barrierta I EL - 102 has been tested and approved for contact-free minimum-quantity greasing starting with 0,1 mg by electro-pneumatic jet valves.

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.

KLÜBER LUBRICATION

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Pack sizes	BARRIERTA I S-402	BARRIERTA I MI-202	BARRIERTA I L-162	BARRIERTA I EL-102
Cartrigde 800 g	+			
Can 1 kg	+	+	+	+
Can 180 g	+	+	+	
Bucket 10 kg	+	+		

Characteristics	BARRIERTA I S-402	BARRIERTA I MI-202	BARRIERTA I L-162	BARRIERTA I EL-102
Article number	090005	090006	090007	090008
Composition, solid lubricant	PTFE	PTFE	PTFE	PTFE
Composition, type of oil	PFPE	PFPE	PFPE	PFPE
Colour space	white	white	white	white
Service temperature, lower limit	-40 °C	-45 °C	-45 °C	-45 °C
Service temperature, upper limit	260 °C	240 °C	200 °C	180 °C
Density, Klüber method: PN 024, 20°C	approx. 1.95 g/cm³	approx. 1.95 g/cm³	approx. 1.92 g/cm³	approx. 1.92 g/cm³
NLGI grade, DIN 51818	2	2	2	2
Shear viscosity, Klüber method: PN 008@DIN 53019-1, equipment: rotational viscometer, 25°C, 300 s^{-1}, lower limit	7000 mPas	4000 mPas	4000 mPas	3000 mPas
Shear viscosity, Klüber method: PN 008@DIN 53019-1, equipment: rotational viscometer, 25°C, 300 s^{-1}, upper limit	10000 mPas	7000 mPas	8000 mPas	5600 mPas
Kinematic viscosity of the base oil, DIN EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 100°C	approx. 40 mm²/s	approx. 22 mm²/s	approx. 18 mm²/s	approx. 12 mm²/s
Kinematic viscosity of the base oil, DIN EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 40°C	approx. 420 mm²/s	approx. 200 mm²/s	approx. 160 mm²/s	approx. 100 mm²/s
SKF-EMCOR, DIN 51802, Klüber method: distilled water, 168 h	≤ 1 corrosion degree	≤ 1 corrosion degree	≤ 1 corrosion degree	≤ 1 corrosion degree
Flow pressure, DIN 51805-2, -40°C	≤ 1400 mbar			
Flow pressure, DIN 51805-2, -45°C		≤ 1400 mbar	≤ 1400 mbar	≤ 1400 mbar
Four-ball tester, welding load, DIN 51350-4	approx. 5000 N	approx. 5000 N	approx. 5000 N	approx. 4800 N
Speed factor (n x dm)	300000 mm/min	approx. 600000 mm/min	500000 mm/min	500000 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	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 90 years.

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