

BARRIERTA L 55

High-temperature long-term greases



Your benefits at a glance

- Higher machine availability and less need for maintenance
 - at very high operating temperatures up to 260 °C
 - under the influence of aggressive media and vapours
 - when used with plastics and sealing materials
- Reliable operation in numerous industries and component types
 - thanks to BARRIERTA base oils, which are made specifically to enable long-term stability
 - backed by a large number of approvals and references for various applications
 - four consistency classes to suit different applications

Your requirements - our solution

Your demanding application requires a high-quality lubricant of the highest quality and excellent lubrication properties.

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.

We are committed to live up to this good reputation. BARRIERTA L55 series products are made from clearly specified raw materials and the production and quality of the end product is closely monitored.

BARRIERTA L 55/0-3 series long-term greases offer excellent resistance to high temperature and aggressive media and at the same time compatibility with plastics and elastomers.

The lubricants were developed for incidental contact with products and packaging materials in the food-processing, cosmetics, pharmaceutical or animal feed industries. BARRIERTA L 55/0-3 are NSF H1 registered and therefore comply with FDA 21 CFR § 178.3570. The use of BARRIERTA L 55/0-3 can contribute to increase reliability of your production processes. We nevertheless recommend conducting an additional risk analysis, e.g. HACCP.

Application

Rolling and plain bearings subject to high temperatures

One of the well-known strengths of the BARRIERTA L 55 series is the products' suitability for the lubrication of bearings and guides operating under extreme temperatures. A low evaporation rate enables longest grease lives and hence longest relubrication intervals.

Typical applications include:

- conveyors (load and turn rollers)
- kiln cart wheel bearings
- calender bearings
- fan bearings
- chain bearings in film stretching stenters

BARRIERTA L 55/2 is most frequently used for initial and long-term lubrication.

For relubrication softer grades of NLGI class 1 or lower are recommended.

Friction points under the influence of media

BARRIERTA L 55 greases offer exceptionally long service lifetimes even when exposed to any of a large number of aggressive media such as concentrated acids, lyes, organic solvents or gases.

In addition to their resistance to media, BARRIERTA L 55/2 and BARRIERTA L 55/3 offer also good adhesion and a sealing effect, which makes them suitable for application in

- valves, fittings and installations e.g. in the chemical industry
- pneumatic components
- level gauges, e.g. for fuels or chemicals
- seals (static, dynamic)
- extraction systems

Food-processing and pharmaceutical industries

All BARRIERTA L 55 greases are registered as NSF-H1 and are therefore in compliance with FDA 21 CFR § 178.3570.

The additional certification according to ISO 21469 supports the compliance with the hygienic requirements in your production plant.

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High-temperature long-term greases



You will find further information on ISO Standard 21469 on our website www.klueber.com.

White-coloured BARRIERTA L 55 special lubricants can therefore also be used on friction points where incidental contact with food products cannot be ruled out for technical reasons, e.g. in rolling and plain bearings and guides operating under high thermal loads in

- automatic baking ovens
- cooking or frying lines
- conveyor systems

Plastic-plastic friction points

BARRIERTA L 55 greases – irrespective of NLGI grade - are neutral towards the majority of plastic materials. Results of pertinent tests with fluoroelastomers can be found overleaf.

We recommend testing lubricant compatibility with the materials in question prior to series application.

Application notes

For optimum results we recommend cleaning all friction points with white spirit 180/210 and then with Klüberalfa XZ 3-1 or Klüberalfa NH1 XZ 3-1 prior to initial lubrication. Subsequently, the friction points should be dried with clean dry compressed air or hot air to remove all solvent residues.

The friction point must be free from oil, grease, perspiration and contamination particles before initial lubrication.

Please contact our experts for details of "best practice" with BARRIERTA L 55 lubricants to ensure longest lifetimes and highest performance outcomes are achieved.

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.

Additional data: resistance to fluoroelastomers

Change	75 FKM 585	80 FKM 610	60 FVMQ 565
Duration [h] / temperature [°C] of exposure	168 / 160	168 / 160	168 / 150
Volume [%]	+ 0,5	+0.5	- 0.3
Hardness (Shore A)	- 1	- 1	- 2
Tensile strength [%]	+ 15	+ 15	- 16
Elongation at tear [%]	- 11	- 11	- 10

General recommendations for use:	Static	Dynamic
Change in volume [%]	-5 to +15	- 2 to + 5
Change in hardness (Shore A)	- 10 to + 10	- 5 to + 5

Pack sizes	BARRIERTA L 55/0	BARRIERTA L 55/1	BARRIERTA L 55/2	BARRIERTA L 55/3
Cartridge 800 g	+	+	+	+
Can 1 kg	+	+	+	+
Bucket 10 kg	+	+	+	+

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High-temperature long-term greases



Pack sizes	BARRIERTA L 55/0	BARRIERTA L 55/1	BARRIERTA L 55/2	BARRIERTA L 55/3
Bucket 30 kg	+		+	+

Characteristics	BARRIERTA L 55/0	BARRIERTA L 55/1	BARRIERTA L 55/2	BARRIERTA L 55/3
Article number	090035	090042	090013	090014
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	-40 °C	-40 °C	-30 °C
Service temperature, upper limit	260 °C	260 °C	260 °C	260 °C
NSF H1 registration number	129523	129561	129400	129562
Density, Klüber method: PN 024, 20°C	approx. 1.95 g/cm ³	approx. 1.95 g/cm ³	approx. 1.96 g/cm ³	approx. 1.96 g/cm ³
NLGI grade, DIN 51818	0	1	2	3
Shear viscosity, Klüber method: PN 008@DIN 53019-1, equipment: rotational viscometer, 25°C, 300 s ⁻¹ , lower limit	3500 mPas	4000 mPas	8000 mPas	11000 mPas
Shear viscosity, Klüber method: PN 008@DIN 53019-1, equipment: rotational viscometer, 25°C, 300 s ⁻¹ , upper limit	5500 mPas	8000 mPas	12000 mPas	17000 mPas
Kinematic viscosity of the base oil, DIN EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 100°C	approx. 40 mm ² /s	approx. 40 mm ² /s	approx. 40 mm ² /s	approx. 40 mm ² /s
Kinematic viscosity of the base oil, DIN EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 40°C	approx. 420 mm ² /s	approx. 420 mm ² /s	approx. 420 mm ² /s	approx. 420 mm ² /s
SKF-EMCOR, DIN 51802, Klüber method: distilled water, 168 h		≤ 1 corrosion degree	≤ 1 corrosion degree	≤ 1 corrosion degree
Flow pressure, DIN 51805-2, -30°C				≤ 1400 mbar
Flow pressure, DIN 51805-2, -40°C		≤ 1400 mbar	≤ 1600 mbar	
Four-ball tester, welding load, DIN 51350-4	≥ 6000 N	≥ 7000 N	≥ 8000 N	≥ 8000 N
Speed factor (n x dm)	approx. 300000 mm/min	approx. 300000 mm/min	approx. 300000 mm/min	approx. 300000 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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