

# BARRIERTA® L 55 series

## High-temperature long-term greases

### Benefits for your application

- Higher machine availability and less need for maintenance
  - o at very high operating temperatures up to 260 °C
  - o under the influence of aggressive media and vapours
  - o where other lubricants might affect sensitive plastic components
- Tried and tested over many years in numerous industries and component types
  - o thanks to BARRIERTA® base oils, which are made specifically to enable long-term stability
  - o backed by a large number of approvals and references for various applications
  - o Four consistency classes to suit different applications

### 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. Specifically made raw materials and continued development have made BARRIERTA® products the first choice of lubrication experts in many sectors worldwide.

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. BARRIERTA® L 55 greases are made without silicone-containing raw materials.

### 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 and for application by means of automatic lubrication systems 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





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- 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.

White-coloured BARRIERTA® L 55 special lubricants can therefore also be used on friction points where occasional 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 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 technical sales staff for details of "best practice" with BARRIERTA® L 55 lubricants to ensure longest lifetimes and highest performance outcomes are achieved.

#### **Minimum shelf life**

The minimum shelf life is approx. 60 months if the product is stored in its original closed container in a dry, frost-free place.

#### **Pack sizes**

1 kg can  
800 g cartridge  
10 kg bucket

Further pack sizes can be supplied on request.

#### **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.

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Product data	BARRIERTA® L 55/0	BARRIERTA® L 55/1	BARRIERTA® L 55/2	BARRIERTA® L 55/3
Article No.	090035	090042	090013	090014
Chemical base	perfluorinated polyether, PTFE			
Service temperature range*, [°C]	-40 to 260	-40 to 260	-40 to 260	-30 to 260
Colour	white			
Drop point, DIN ISO 2176**, [°C]	not measurable			
Density at 20 °C, [g/cm <sup>3</sup> ], ca.	1.95	1.95	1.96	1.96
Consistency, DIN 51818, NLGI class	0	1	2	3
Apparent dynamic viscosity, Klüber viscosity class***	M	M	S	S
Base oil viscosity, DIN 51562, at 40 °C, [mm <sup>2</sup> /s], approx. at 100 °C, [mm <sup>2</sup> /s], approx.	400 40			
Anticorrosive effect of lubricating greases, DIN 51802, (SKF-Emcor), 1 week, distilled water	not applicable	≤ 1	≤ 1	≤ 1
Flow pressure, DIN 51805, [mbar] (test temp., [°C])	not applicable	< 1,400 (-40)	< 1,600 (-40)	< 1,400 (-30)
Four ball wear test, welding load, DIN 51350, pt. 04 [N]	> 6,000	> 7,000	> 8,000	> 8,000
Speed factor**** (n x d <sub>m</sub> ), [mm x min <sup>-1</sup> ], approx.	300,000			
NSF H1 registration***** registration number	129523	129561	129400	129562

- \* Service temperatures are guide values which depend on the lubricant's composition, the intended use and the application method. Lubricants change their consistency, apparent dynamic viscosity or viscosity depending on the mechano-dynamical loads, time, pressure and temperature. These changes in product characteristics may affect the function of a component.
- \*\* Measuring a drop point acc. to DIN 2176 is not possible for these high-temperature greases (not meltable); however, above 170°C a certain degree of separation is possible.
- \*\*\* Klüber viscosity grades: EL = extra light lubricating grease; L = light lubricating grease; M = medium lubricating grease; S = heavy lubricating grease; ES = extra heavy lubricating grease
- \*\*\*\* Speed factors are guide values which depend on the type and size of the rolling bearing type and the local operating conditions, which is why they have to be confirmed in tests carried out by the user in each individual case.
- \*\*\*\*\* This lubricant is registered as H1, which means that it has been designed for incidental, technically unavoidable food contact. Experience shows that it can be used for equivalent applications in the cosmetic and pharmaceutical industry under the conditions described in the product information leaflet. Specific test results as e.g. biocompatibility, which could be an additional requirement for applications in the pharmaceutical industry, are not available for this product. Therefore, before using the lubricant adequate risk analyses should be performed and, if necessary, suitable measures be taken by the manufacturer and user of installations in order to exclude the risk of health hazards and personal injuries.





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#### Additional data\*: resistance to fluoroelastomers

Change	75 FKM 585	80 FKM 610	60 FVMQ 565
Exposure life [h] / exposure temp. [°C]	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

\* The listed values are the results of sample testing with BARRIERTA® L55/2, closely related to DIN 53521, and are not subject to regular revision. The stated values serve for orientation only and may vary according to the material used and the pretreatment it has undergone. Fixed product data cannot be derived from the test data.  
Owing to the many different elastomer compositions we recommend checking their compatibility on the complete component prior to series application.


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