

Klübersynth R 42-111

Fully synthetic speciality grease for seals



Your benefits at a glance

- Optimised lubrication of heavily loaded radial shaft seals
 - Extends the service life of your seals
 - Enables reliable lubrication in start-stop operation
- Easier seal assembly
- Longer component availability due to reduction of leakage
- Versatile uses due to excellent compatibility with elastomers

Your requirements - our solution

Your gearboxes contain numerous seals whose long-term functioning is essential for low-friction operation. Any leakage leads to time-consuming and expensive maintenance operations.

Klübersynth R 42-111 was especially developed for the optimised operation of radial shaft seals and to facilitate proper seal assembly.

The use of fully synthetic base oils enables for-life lubrication, especially at high temperatures. The particular mix of base oils used leads to extraordinarily good compatibility with many frequently used elastomers (NBR, ACM, FKM) and plastics.

Klübersynth R 42-111 lubricates the seal during start-stop operation until the (gear) oil reaches the seal. It also improves seal lip wetting by the oil. Dirt and moisture are reliably prevented from entering the gearbox.

Application

Klübersynth R 42-111 is extremely well suitable for the lubrication of seals and plastics that are often used in gearboxes and motors:

- Radial shaft seals made of FKM, NBR, ACM
- O-ring seals made of NBR, HNBR or FKM
- Plastics such as POM or PA

Application notes

If the lubricant is to be pumped and applied via automatic systems, or intended for series application, the correct function must be checked with the equipment manufacturer in advance.

The lubricant may also be applied by brush, spatula or grease gun. As the performance of the grease can be impaired by mixing with other products, it is important to use exclusively Klübersynth R 42-111 as seal and assembly grease.

For your application, please check compatibility with the materials used and the operating conditions such as temperature.

For greasing radial shaft seals, please bear in mind that approx. 40 % of the space between the dust lip and the sealing lip should be filled with grease. The grease should be applied at regular intervals all around the perimeter of the sealing lip. This can be done by means of a greasing system or a tube with a suitable spout. This is illustrated by the following picture:



Picture 1: Greased radial shaft seal

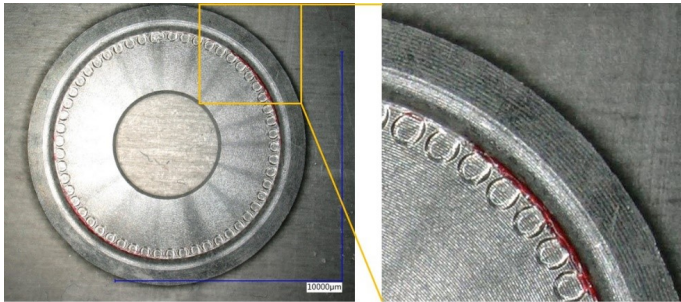
Klübersynth R 42-111 has been tested and approved for the contact-free greasing in minimal quantities starting from 0.006 mg by means of piezoelectric jet valves. In tests, excellent positioning accuracy and mass stability of the lubrication points were attained

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with metering distances up to 6 mm. This enables highly accurate, fully automated application of the lubricant to the component, in precisely the right quantity.



Picture 2: Contact-free greasing with minimal quantities of 0.006 mg, path velocity or peripheral speed 10 mm/s

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.

Pack sizes	Klübersynth R 42-111
Cartridge 400 g	+
Can 1 kg	+
Bucket 25 kg	+
Bucket 50 kg	+

Characteristics	Klübersynth R 42-111
Article number	094119
Composition, thickener	lithium complex soap
Composition, type of oil	ester oil , synthetic hydrocarbon oil
Colour space	brown
Service temperature, lower limit	-40 °C
Service temperature, upper limit	150 °C
Density, Klüber method: PN 024, 20°C	approx. 0.92 g/cm ³
Worked penetration, DIN ISO 2137 / ASTM D217, 25°C, lower limit	300 0.1 mm
Worked penetration, DIN ISO 2137 / ASTM D217, 25°C, upper limit	330 0.1 mm
Kinematic viscosity of the base oil, DIN EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 100°C	approx. 14 mm ² /s
Kinematic viscosity of the base oil, DIN EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 40°C	approx. 110 mm ² /s
SKF-EMCOR, DIN 51802, Klüber method: distilled water, 168 h	≤ 1 corrosion degree
Flow pressure, DIN 51805-2, -40°C	≤ 700 mbar
Dropping point, DIN ISO 2176 / IP 396	≥ 250 °C
Compatibility with elastomers, 70 ACM 121433	passed
Compatibility with elastomers, 70 ACM 380 DF	passed

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Characteristics	Klübersynth R 42-111
Compatibility with elastomers, 72 NBR 902	passed
Compatibility with elastomers, 75 FKM 153740	passed
Compatibility with elastomers, 75 FKM 260466	passed
Compatibility with elastomers, 75 FKM 585	passed
Compatibility with elastomers, 85 FKM 285180	passed
Compatibility with elastomers, 88 FKM 801690	passed
Compatibility with elastomers, HNBR	passed
Water washout test, ASTM D1264, 1 h, 38°C, grease loss	≤ 10 % by weight
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	24 months

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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