

Safer process.  
Safer profit.



# rhenus HIGH-PERFORMANCE GREASES

Stable under all conditions



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# rhenus LUBRICATING GREASES

## General information



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# Tailored to your requirements

**Extreme temperature fluctuations and loads, dryness, cold, moisture and dust. On the other hand, there are the strictest purity requirements: Our high-performance greases reliably lubricate roller and friction bearings of all sizes in all conditions.**

Rhenus Lub greases are used in a variety of fields and sectors. They are oxidation-resistant, ageing-resistant and have approvals, permits and certifications from numerous international companies.

## Rhenus Lub – industry partner

In addition to high-quality classic products, we offer high-performance greases for special requirements. Working closely with you, we develop the exact greases you need for your application in our laboratories. Using state-of-the-art test methods, we examine suitability for different temperatures, protective properties against wear, friction properties and other parameters to guarantee a long service life.

## Eco – logical!

Rhenus Lub acts responsibly towards the environment. We develop biodegradable lubricating greases in our laboratories. The specific advantages of rhenus lubricating greases really come to the fore in applications in which sustainable environmental protection is key. rhenus lubricating greases, which are completely degraded in soil or water through biochemical processes, are used in the construction industry, tunnel construction and on railways.





## The best recipe: **quality**

One of Europe's most modern grease factories can be found in the Rheindahlen area of Mönchengladbach – the company headquarters of Rhenus Lub. This is where high-performance greases that companies from all over the world require for their

manufacturing activities are produced. In our laboratories, we continuously conduct research into new compositions that increase both the performance and efficiency of grease lubrication. Precisely tailored to your application.

Many developments in high-performance greases are made by Rhenus Lub in close cooperation with renowned bearing manufacturers. Whether lubricating greases to ensure the quiet operation of roller bearings or for-life lubricating greases – we are guided by the specific requirements of our customers. This philosophy has enabled us to become a strategic development partner of the automotive supply industry (OEM) and many other sectors of industry.

### **Rhenus Lub's for-life lubricating greases: Long life included**

In gears, roller bearings and joints, the toughest demands are placed on strength and endurance. rhenus lubricating greases are therefore used as design elements from an early stage and ensure that machine parts have life-long performance in closed systems – without the need for continuous re-lubrication.

## Advantages at a glance:

- Consistently high quality, even with extreme temperatures and loads
- Approved by international companies
- Approved for the food, pharmaceutical and cosmetics industries
- Environmentally friendly greases, some of which are biodegradable
- Oxidation-resistant
- Long service life
- Water resistance

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# Examples: products and applications

Whether in the pharmaceutical or food industry, on railways, in wet or dry areas, in the freezing cold or the scorching heat – rhenus greases produce top results in heavy-duty day-to-day production.

## Lubricating greases for the food, pharmaceutical and cosmetic industry

Human safety is a top priority at Rhenus Lub. This applies especially to the development and production of lubricants and greases for the food, pharmaceutical and cosmetics industries. We only use raw materials that are physiologically safe and compliant with food regulations. Rhenus Lub is also certified in accordance with the stringent standards of ISO 21469, which define hygiene requirements for the production of food grade lubricants.

Safety first! rhenus lubricants are compliant with international and religious rules and requirements:

- German LMBG (Foodstuffs and Commodities Act)
- FDA (Food and Drug Administration), H1/3H Certificate/NSF International
- Halal
- Kosher

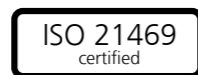
## Special greases for extreme temperatures

Fast-rotating roller bearings can be lubricated down to -60°C without problems with our specially developed low-temperature synthetic grease. Perfluoroalkylether greases are extremely well suited to high-temperature applications up to +300°C.

## High-performance grease for roller and plain bearings under heavy loads

Our lithium EP grease rhenus LKR 2 has been specially developed for use in electric motors under high loads, for reliable lubrication of wheel bearings in track vehicles, for commercial vehicles and fans in the cement industry.

Its temperature resistance and excellent shear stability guarantee a long bearing service life. The grease maintains virtually the same consistency and does not run out of the bearing. The exceptional running performance is achieved without visible wear or measurable changes.



### Greases for applications in the steel industry

rhenus lubricants are successfully used in different plant areas in steel works. rhenus ACN 15 GR protects lubrication points against corrosive process water and abrasive dust in continuous-casting plants. What's more, the layer of grease reduces friction and wear, even at high pressures.

By contrast, chemically active rolling emulsions are used in place of water in cold rolling mills and the bearings run at higher speeds. Besides the

tribological lubricant requirements, rhenus LCC 2 protects the bearing against the penetration of rolling emulsions by creating a stable grease collar.

In cold pilger mills, rhenus CJN 2 adheres extremely well to lubrication points, such as crankshaft bearings and peripheral equipment, thus protecting the bearings, which are constantly submerged in chemically active rolling emulsions.



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**LUBRICATING GREASES**

**Product overview**



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Reference values

Suitable for

Product	Thickener	NLGI class	Base oil type/ viscosity [40°C]	Operating temperature		DIN 51502 classifica- tion	DIN 51807 water resistance	Corro- sion protec- tion**	Central lubrica- tion sys- tems	Roller bear- ings	Plain bear- ings	Open gears, guides	Closed gears	High loads	Characteristic speed value (reference value) in mm/min	Usage notes
				Contin- uous opera- tion	Short term											

### Calcium-saponified lubricating greases

<b>rhenus CGN 2</b>	Spec. Ca	2	Min./14 mm <sup>2</sup> /s	-50°C to +100°C	+110°C	K 2 G-50	1-90	Good	X	X	X				1400000	Smooth low-temperature grease with very low starting resistance, also suitable for low-load, high-speed bearings. Use in cold stores and refrigeration systems.
<b>rhenus CAZ 2</b>	Spec. Ca	2	Min. and synth./800 mm <sup>2</sup> /s	-30°C to +110°C	+120°C	KPF 2 G-30	0-90	Very good		(X)	X	X		X	150000	Long-term EP grease with white solid lubricants and additives against salt water corrosion, very adherent, resistant against water and water-miscible coolants, prevents tribo-corrosion. For the lubrication of chucks and guides on machine tools as well as for lubrication points in humid operating conditions.
<b>rhenus CJN 2</b>	Spec. Ca	2	Min. and synth./800 mm <sup>2</sup> /s	-30°C to +110°C	+125°C	KP 2 G-30	0-90	Good		X	X	X		X	150000	Long-term EP grease based on a semi-synthetic base oil with a very high load-bearing capacity and good adhesive properties. For the lubrication of very highly loaded, slow-running roller bearings, as well as plain bearings and sliding guides. Highly water resistant and therefore particularly resistant to washing out from bearings and sliding points.
<b>rhenus CMN 2</b>	Spec. Ca	2	Min./110mm <sup>2</sup> /s	-30°C to +120°C	+130°C	KP 2 K-30	0-90	Good	X	X	X			X	450000	EP grease suitable for lubricating roller and plain bearings. Used for lubricating wheel bearings on trucks and agricultural equipment. Slewing bearings in construction machinery and cranes. For central lubrication systems in construction machinery.

### Sodium-saponified lubricating greases

<b>rhenus NAN 02*</b>	Na	00/000	Min./130 mm <sup>2</sup> /s	-30°C to +100°C	+110°C	GP 00/000 H-30	3-90	Good	X				X	X		EP gear greases for use in highly loaded gears operated with NLGI class 00 or 000 fluid greases.
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### Lithium/calcium lubricating greases

<b>rhenus LCC 2</b>	Li/Ca	2	Min./220 mm <sup>2</sup> /s	-30°C to +130°C	+140°C	KP 2 K-30	0-90	Very good	X	X	X	(X)		X	300000	For lubricating roller and plain bearings under normal and severe operating conditions, in particular for lubrication points that are subjected to high loads and sometimes to shock loads as well as the effects of humidity. Roller conveyors and roller lubrication of hot- and cold-rolling mills as well as Conti pipe conveyors, for example. Lubrication of slewing bearings, electric motors, pumps and forging presses.
<b>rhenus LCA 2</b>	Li/Ca	2	Min./400 mm <sup>2</sup> /s	-25°C to +140°C	+150°C	KP 2 N-20	0-90	Very good	(X)	X	X	(X)		X	200000	

### Bentonite lubricating greases

<b>rhenus BCN 2</b>	Bent.	2	Min. and synth./500 mm <sup>2</sup> /s	-15°C to +150°C	+200°C	KP 2 P-10	0-90	Satis- factory	(X)	X				X	200000	Drop-point-free, high-temperature EP grease for lubricating roller bearings in hot-mixing plants, asphaltting machines, hot roller conveyors in the steel industry and bearings for hot-running transport equipment.
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Reference values

Suitable for

Product	Thickener	NLGI class	Base oil type/ viscosity [40°C]	Operating temperature		DIN 51502 classifica- tion	DIN 51807 water resistance	Corro- sion protec- tion**	Central lubrica- tion sys- tems	Roller bear- ings	Plain bear- ings	Open gears, guides	Closed gears	High loads	Characteristic speed value (reference value) in mm/min	Usage notes
				Contin- uous opera- tion	Short term											

## Lithium-saponified lubricating greases

<b>rhenus LMN 2</b>	Li	2	Min./ 110 mm <sup>2</sup> /s	-30°C to +120°C	+130°C	KP 2 K-30	1-90	Good	X	X	X	X		X	400000	EP Multi-purpose grease for motor vehicles, construction and agricultural machinery under normal operating conditions. Approvals: MAN 283 Li-P 2, MB approval 267.0
<b>rhenus LZN 2*</b>	Li	2	Min./ 195 mm <sup>2</sup> /s	-30°C to +130°C	+140°C	KP 2 K-30	1-90	Good	X	X	X	(X)		X	300000	Multi-purpose EP grease for lubricating normally and highly loaded bearings. Approved for wheel bearing lubrication on trucks. Approvals: MAN 283 Li-P 2, MB approval 267.0, Volvo Standard STD 1277,18
<b>rhenus LEC 2</b>	Li	2	Min./ 195 mm <sup>2</sup> /s	-30°C to +140°C	+150°C	KP 2 N-30	1-90	Very good	X	X	X	(X)		X	300000	High-performance EP grease in line with the requirements of the steel industry. Preferred use is the lubrication of roller conveyors and roller bearings in rolling mills via central lubrication systems. The grease can also be used to lubricate highly loaded bearings in other sectors. Approval: Steel Institute VDEh SEB 181 253
<b>rhenus LQN 2</b>	Li	2	Min. and synth./ 800 mm <sup>2</sup> /s	-30°C to +140°C	+150°C	KP 2 N-30	1-90	Good	(X)	X	X	(X)		X	150000	EP heavy-duty grease for lubricating very highly loaded bearings with low rotational speeds. Very adherent, good sealing properties. Lubrication intervals can be extended. Very well suited for bearings with impact loads or oscillating movements.
<b>rhenus LBG 2</b>	Li	2	Min./ 120 mm <sup>2</sup> /s	-30°C to +130°C	+140°C	KPF 2 K-30	1-90	Good		(X)	X	X		X	400000	Multi-purpose grease with graphite for harsh operating conditions, such as in construction equipment.
<b>rhenus LAH 2</b>	Li	2	Min./ 195 mm <sup>2</sup> /s	-30°C to +130°C	+140°C	KPF 2 K-30	1-90	Good		(X)	X	X		X	300000	Multi-purpose EP grease with molybdenum disulphide for highly loaded bearings. Molybdenum disulphide is also used as a running-in and smoothing aid.
<b>rhenus LIN 0</b>	Li	0	Min./ 90 mm <sup>2</sup> /s	-40°C to +120°C	+130°C	GP 0 K-40	1-90	Good	X				X	X		EP gear grease for use in highly loaded gears operated with NLGI class 0 fluid grease, such as geared motors. Approval: MAN 283 Li-P 0
<b>rhenus LJU 02 GR</b>	Li	00/000	Min./ 45 mm <sup>2</sup> /s	-50°C to +120°C		GP 00/000 K-50	1-90	Good	X							For central lubrication devices used in commercial vehicles as well as in open-air power units with long pipe runs. It meets the specifications of Baier & Köppel. Approvals: SKF Lincoln, MAN 283 Li-P 00/000 and MB approval 264.0
<b>rhenus LBN 2</b>	Li	2	Min./ 120 mm <sup>2</sup> /s	-30°C to +130°C	+150°C	KP 2 K-30	1-90	Good	X	X	X				400000	Special very low-noise universal grease for high-speed ball and roller bearings.
<b>rhenus LAN 3</b>	Li	3	Min./ 80 mm <sup>2</sup> /s	-30°C to +130°C	+150°C	KP 3 K-30	1-90	Good	X	X	X				500000	Low-noise universal grease for ball and roller bearings.
<b>rhenus LXN 2</b>	Li	2	Synth./ 18 mm <sup>2</sup> /s	60°C to +120°C		KHC 2K-60	1-90	Good	X	X	X				1500000	Special low-temperature grease with extremely low starting resistance. In addition to being very compatible with plastic, it also offers good corrosion protection against steel.

Reference values

Suitable for

Product	Thickener	NLGI class	Base oil type/ viscosity [40°C]	Operating temperature		DIN 51502 classifica- tion	DIN 51807 water resistance	Corro- sion protec- tion**	Central lubrica- tion sys- tems	Roller bear- ings	Plain bear- ings	Open gears, guides	Closed gears	High loads	Characteristic speed value (reference value) in mm/min	Usage notes
				Contin- uous opera- tion	Short term											

## Lithium-complex lubricating greases

<b>rhenus LKT 2</b>	Li-K	2	Synth./ 27 mm <sup>2</sup> /s	-60°C to +150°C		KPHC 2 N-60	1-90	Good	X	X	X			X	1000000	Lubrication of roller bearings and plain bearings at low temperatures.
<b>rhenus LKK 15</b>	Li-K	1-2	Synth./ 40 mm <sup>2</sup> /s	-50°C to +150°C	+200°C	KPHC 1-2 N-50	1-90	Good	X	X	X			X	750000	Synthetic oil-based EP multi-application grease. Low-temperature grease that also covers the application field for high-temperature greases. It is especially suitable for use in electrical actuators in the automotive industry, e.g. for electric window actuators or wiper motors.
<b>rhenus LKP 2*</b>	Li-K	2	Min./ 115 mm <sup>2</sup> /s	-20°C to +150°C	+200°C	KP 2 N-20	1-90	Good	X	X	X			X	400000	High-temperature EP grease for lubrication of highly loaded bearings for normal and increased Operating temperatures, such as in forging presses, calenders and manipulators in the steel industry.
<b>rhenus LKP 15</b>	Li-K	1-2	Min./ 500 mm <sup>2</sup> /s	-15°C to +150°C	+200°C	KP 1-2 N-10	1-90	Good	(X)	X	X	(X)		X	200000	High-temperature EP grease with high-viscosity base oil. Suitable for bearings subjected to high loads and low rotational speeds, such as bearings for pellet and forging presses, heat calenders, paper machines, bearings in hot forging machines.
<b>rhenus LKR 2</b>	Li-K	2	Min. and synth./ 100 mm <sup>2</sup> /s	-30°C to +150°C	+200°C	KP 2 N-30	1-90	Good	X	X	X			X	450000	High-temperature EP grease with semi-synthetic base oil. Wide application-temperature range. Particularly suitable for car and truck wheel bearings.
<b>rhenus LKR 25</b>	Li-K	2-3	Min. and synth./ 210 mm <sup>2</sup> /s	-30°C to +150°C	+200°C	KP 2-3 N-30	1-90	Good	X	X	X			X	300000	High-temperature EP grease with partially synthetic base and good sealing effect. Wide application-temperature range. Particularly suitable for car and truck wheel bearings. Approvals: MAN 284 Li-H 2, MB approval 265.1
<b>rhenus LKG 2</b>	Li-K	2	Synth./ 30 mm <sup>2</sup> /s	-50°C to +150°C	+200°C	KPHC 2 N-50	1-90	Good	X	X	X			X	1150000	Synthetic oil-based EP multi-application grease. It is especially suitable for the lubrication of high-speed spindle bearings.
<b>rhenus LKY 2</b>	Li-K/Ca	2	Min./ 420 mm <sup>2</sup> /s	-25°C to +150°C	+200°C	KP 2 N-20	0-90	Very good	X	X	X			X	200000	Special EP grease for the lubrication of bearings in wet and dry areas of paper machines. Variable speed gears in wind turbines, pumps, transport rollers, etc. Meets the requirements of specification VN 108 of Voith-Paper.
<b>rhenus LKX 2</b>	Li-K	2	Min. and synth./ 600 mm <sup>2</sup> /s	-25°C to +150°C	+200°C	KPF N-20	1-90	Very good	X	X	X	X		X	150000	High-performance EP grease with teflon for the lubrication of roller and plain bearings, sprockets and bolts for adverse conditions, such as high pressure loads, high temperatures, humidity, vibrations and impact loads. Typically used in earth-moving machines, wooden pellet mills, cranes and all kinds of joints.
<b>rhenus LKZ 2</b>	Li-K	2	Synth./ 115mm <sup>2</sup> /s	-40°C to +150°C	+170°C	KP 2 N-40	1-90	Very good		X	X			X	400000	Specifically designed for use on roller bearings in electric motors and generators. It can be used over a wide temperature range.
<b>rhenus LKC 1</b>	Li-K	1	Min. and synth./ 420 mm <sup>2</sup> /s	-40°C to +150°C	+200°C	KPHC 1 N-40	0-90	Good	X	X	X		X	X	200000	Used to lubricate bearings in wet and dry areas of paper machines, variable speed gears in wind turbines, bearings in electric motors, pumps, forging presses, calenders, rollers in transport equipment.

Reference values

Suitable for

Product	Thickener	NLGI class	Base oil type/ viscosity [40°C]	Operating temperature		DIN 51502 classifica- tion	DIN 51807 water resistance	Corro- sion protec- tion**	Central lubrica- tion sys- tems	Roller bear- ings	Plain bear- ings	Open gears, guides	Closed gears	High loads	Characteristic speed value (reference value) in mm/min	Usage notes
				Contin- uous opera- tion	Short term											

### Aluminium-complex lubricating greases

<b>rhenus APN 2</b>	Al-K	2	Min./ 240 mm <sup>2</sup> /s	-20°C to +150°C	+200°C	KP 2 P-20	0-90	Good	X	X	X	(X)		X	400000	High-temperature EP grease for normal and high Operating temperatures. Preferred use for the lubrication of hot-running bearings in the steel industry, asphaltting machines and forging presses.
<b>rhenus ACN 15 GR</b>	Al-K	1-2	Min./ 500 mm <sup>2</sup> /s	-20°C to +150°C	+220°C	KP 1-2 P-20	0-90	Good	(X)	X	X	X		X	200000	High-temperature EP lubricating grease with high-viscosity base oil. Suitable for bearings subjected to high loads. Preferred use for the lubrication of hot-running bearings in the steel industry, such as continuous-casting plants and bearings for coil-transport chains and asphalt mixing plants.
<b>rhenus ADG 0</b>	Al-K	0	Min./ 500 mm <sup>2</sup> /s	-20°C to +200°C	+250°C	OGPF 0 S-20	0-90	Good				X		X		Graphitised high-temperature EP grease for the lubrication of open sprockets. Preferred use in spray lubrication systems for sprockets in rotary kilns and cement mills. Can also be applied manually to open gears, toothed racks and sprockets in construction equipment. Selection of consistency according to the operating instructions.
<b>rhenus ADG 02</b>	Al-K	00	Min./ 500 mm <sup>2</sup> /s	-30°C to +200°C	+250°C	OGPF 0-00 S-30	0-90	Good				X		X		

### Easily biodegradable lubricating greases

<b>rhenus CDN 2*</b>	Spec. Ca	2	Nat. ester/ 36 mm <sup>2</sup> /s	-20°C to +80°C		KE 2 E-20	0-40	Good	(X)	X	X				800000	Easily biodegradable grease based on natural esters. Mainly used in areas where escaping lubricating grease can pollute the environment, such as in agriculture and forestry, sand and gravel plants, and hydraulic engineering. Not suitable for long-term lubrication.
<b>rhenus LAC 2*</b>	Li	2	Synth. ester/ 100 mm <sup>2</sup> /s	-35°C to +120°C	+130°C	KPFE 2 K-30	2-90	Good	X	X	X	(X)		X	450000	Easily biodegradable multi-purpose grease based on synthetic esters. The lubricating grease can be used in environmental risk areas as a multi-purpose EP grease based on mineral oil. Its biodegradability makes it unsuitable for lifetime lubrication.
<b>rhenus LDU 02 GR</b>	Li	00/000	Synth. Ester/ 45 mm <sup>2</sup> /s	-40°C to +120°C		MPE 000 K-40	1-90	Good	X							Easily biodegradable fluid grease for central lubrication devices of commercial vehicles as well as in open-air power units with long pipe runs. Approvals: SKF, MAN 283 Li-P 00/000-B
<b>rhenus LSN 04</b>	Li	0000	Synth. ester/ 25 mm <sup>2</sup> /s	-40°C to +120°C		MPE 0000 K-40	1-90	Good	X	X	X			X		Easily biodegradable switch plate lubricant based on synthetic esters. Approval: Deutsche Bahn AG
<b>rhenus BDG 02</b>	Bentonite	00-000	Synth. ester/ 30 mm <sup>2</sup> /s	-40°C to +80°C		MFE 00- 000 E-40	1-90	Good	X					X		Easily biodegradable grease suitable for the lubrication of wheel flanges in all kinds of track vehicles. It is very adherent.
<b>rhenus CCN 15</b>	Spec. Ca	1.5	Synth. organic ester/46 mm <sup>2</sup> /s	-40°C to +100°C		KPE 1-2 G-40	1-90	Good	X					X		Very good shear stability, including in the presence of water. Special additives enable it to withstand extremely high pressures and significantly reduce wear in mixed frictional areas.

Reference values

Suitable for

Product	Thickener	NLGI class	Base oil type/ viscosity [40°C]	Operating temperature		DIN 51502 classifica- tion	DIN 51807 water resistance	Corro- sion protec- tion**	Central lubrica- tion sys- tems	Roller bear- ings	Plain bear- ings	Open gears, guides	Closed gears	High loads	Characteristic speed value (reference value) in mm/min	Usage notes
				Contin- uous opera- tion	Short term											

### Lubricating greases for the food, pharmaceutical and animal-feed industries with NSF-H1 approval

<b>rhenus ACN 2*</b>	Al-K	2	Med. White oil 160 mm <sup>2</sup> /s	-30°C to +140°C	+180°C	K 2 N-30	0-90	Good	X	X	X				400000	For the lubrication of machines and bearings with low to medium load. Suitable for use in lubrication points where direct food contact cannot be ruled out.
<b>rhenus ADC 2*</b>	Al-K	2	Med. White oil 160 mm <sup>2</sup> /s	-20°C to +140°C	+180°C	KPF 2 N-20	0-90	Good	X	X	X	(X)		X	350000	For the lubrication of highly loaded systems. Suitable for use in lubrication points where direct food contact cannot be ruled out.
<b>rhenus ABC 2*</b>	Al-K	2	PAO/ 350 mm <sup>2</sup> /s	-45°C to +160°C	+200°C	KPFHC 2 P-40	0-90	Good	X	X	X	(X)		X	200000	For the lubrication of highly loaded machines and bearings over a wide temperature range. Suitable for use in lubrication points where direct food contact cannot be ruled out.
<b>rhenus ADD 2*</b>	Al-K	2	Med. White oil 460 mm <sup>2</sup> /s	-20°C to +140°C	+180°C	KPF 2 N-20	0-90	Good	X	X	X	(X)		X	200000	For the lubrication of highly loaded systems, such as pellet presses. Suitable for use in lubrication points where direct food contact cannot be ruled out.
<b>rhenus WAO 2</b>	PTFE	2	PFPE/ 500 mm <sup>2</sup> /s	-40°C to +280°C	+300°C	KFK 2 U-40	0-90	Good		X	X				200000	Fully synthetic high-temperature grease, thermally very stable, chemically resistant to aggressive media and almost all solvents. Suitable for use in lubrication points where direct food contact cannot be ruled out.

### Pastes

<b>rhenus BCM 15</b>		1-2	Min./ 70 mm <sup>2</sup> /s	-30°C to +450°C***		MPF 1-2 U-30	1-90	Good			X	X		X		Assembly paste with molybdenum disulphide for easy assembly of workpieces with sliding or fixed seatings, bolts, bushings, bearing fittings, highly loaded guides and screwed connections. It can also be used for the lubrication of joints and chains, and as a running-in aid for gear teeth. The solid lubricant film is resilient to +450°C.
<b>rhenus MAK 15</b>		1-2	Min./ 240 mm <sup>2</sup> /s	-30°C to +700°C***		MPF 1-2 U-30	1-90	Good						X		Copper-containing high-temperature paste for all connecting elements, such as screws, nuts, guides and press fittings, subjected to high temperatures and corrosive influences. The proven separating and lubricating effect and good corrosion protection properties make normal release possible even after extended periods. Screw connections can be separated without problems, even after heat treatment. Used for screw connections in foundries, metallurgical plants and chemical plants, as well as in the car and commercial vehicle sector as an anti-screech paste for disc brakes and as a separating paste for exhaust bolts.
<b>rhenus MBK 2</b>		2	Min. and synth./ 290 mm <sup>2</sup> /s	-30°C to +1,100°C***			1-90	Good						X		Smooth assembly and high-temperature paste based on a semi-synthetic base oil with a particularly pure copper powder of very low particle size. Adherent without dripping at high temperatures. Prevents heat seizing, scaling and cold welding of screw and bolt connections and press fittings. Used to lubricate brake cams, as an anti-screech paste for brake pads and for screw connections of all kinds. Non-destructive dismantling is possible even after high thermal stress.
<b>rhenus ACK 2</b>		2	Min./ 350 mm <sup>2</sup> /s	-30°C to +1,100°C***			0-90	Good						X		A brown-black chisel paste based on an aluminium complex soap and enriched with metal powder and solid matter. Suitable for the lubrication of plug tools and wear bushings on hydraulic and pneumatic hammers.

Reference values

Suitable for

Product	Thickener	NLGI class	Base oil type/ viscosity [40°C]	Operating temperature		DIN 51502 classifica- tion	DIN 51807 water resistance	Corro- sion protec- tion**	Central lubrica- tion sys- tems	Roller bear- ings	Plain bear- ings	Open gears, guides	Closed gears	High loads	Characteristic speed value (reference value) in mm/min	Usage notes
				Contin- uous opera- tion	Short term											

### Special high-temperature lubricating greases

<b>rhenus WAO 2</b>	PTFE	2	PFPE/500 mm <sup>2</sup> /s	-40°C to +280°C	+300°C	KFK 2 U-40	0-90	Good		X	X				200000	Fully synthetic high-temperature grease, thermally very stable, chemically resistant to aggressive media and almost all solvents. Used where other lubricating greases are inadequate due to high temperatures or environmental factors. Any mixing with other greases or oils must be avoided without fail.
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### Polyurea greases

<b>rhenus HCN 25</b>	PU	2-3	Synth./ 460 mm <sup>2</sup> /s	-40°C to +190°C	+230°C	KPHC 2-3 S-40	0-90	Good		X	X	(X)		X	200000	Fully synthetic polyurea grease for the lubrication of roller and plain bearings exposed to high pressures and impact stresses at high bearing temperatures, such as roller conveyors, bearings on annealing ovens, casting equipment, bell annealing furnaces and electric motors, etc.
<b>rhenus HKN 15*</b>	PU	1-2	Min./ 460mm <sup>2</sup> /s	-30°C to +180°C		KP 1-2 R-30	0-90	Good	X	X	X			X	250000	Suitable for the lubrication of roller and plain bearings exposed to high pressures and impact stresses at high bearing temperatures, especially under extreme environmental conditions, such as dust, dirt, humidity and water.

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