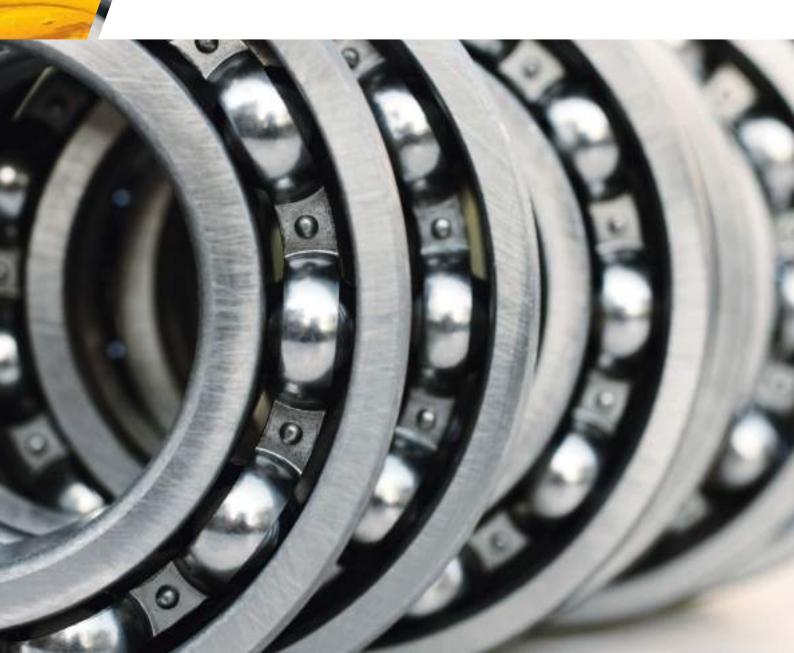


your global specialist

Detailed information

The element that rolls the bearing. A selection of special lubricants for rolling bearings





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Klüber speciality lubricants – always a good choice

Quality put to the test

- Klüber Lubrication has more than 110 test rigs, which include standardised equipment as well as tools Klüber Lubrication has developed to regularly test the quality of its products.
- Test results prove the high quality level and provide you with a Speciality lubricants optimised for higher efficiency reduce solid basis for selecting the right lubricant.
- You can obtain products made by Klüber Lubrication in con- Clean, safe products that are easy to handle are the funsistent quality at our production plants worldwide.

Benefit from experience

- Close cooperation with OEMs and operators since 1929
- Series supplier to many OEMs on all continents
- OEMs in all industries recommend Klüber lubricants for their components
- Alliances with partner companies for maximum user benefit
- The product range comprises oils, greases, pastes, waxes and bonded coatings, so the right lubricant for any application can be selected.

Time is money - we help to save you both by enabling

- Optimised processes
- Higher productivity
- Compliance with legal requirements and quality standards
- Reduction of maintenance times and repair costs
- Development partnerships giving you a head-start in innovation and differentiating yourself from the competition

Humans and the environment - what really counts

- Products that last a lifetime and enable minimum-quantity lubrication to be used help to save resources and reduce disposal quantities.
- energy consumption and hence CO₂ emission.
- damental criteria used in the lubricant development by the Klüber experts.

KlüberServiceSystem - consultation, training & monitoring

- Comprehensive consulting and technical support
- Development of plant lubrication charts
- Automatic lube point monitoring
- Analysis of your used lubricants and components
- Klüber Asset Support at your facility
- Tailor-made training for your staff



High-temperature greases

Upper service temp.	Speed factor n∙dm [min⁻¹ ·mm], approx.	Lower service temp.	Base oil viscosity DIN 51562 [mm²/s] at approx. 40 °C / 104 °F	Base oil viscosity DIN 51562 [mm²/s] at approx. 100 °C / 212 °F	Worked penetration DIN ISO 2137 [0.1 mm], approx.	Base oil	Thickener	Colour ¹⁾	Product	Article number	Description/application e
260 °C 500 °F	600 000	–50 ℃ –58 ℉	190	34	265 to 295	PFPE	PTFE	white	BARRIERTA KM 192	090122	 Wide service temperature Very good corrosion prote Long service life under exit
260 °C 500 °F	300 000	_40 °C _40 °F	420	40	265 to 295	PFPE	PTFE	white	BARRIERTA L 55/2	090013	 The long-life grease for rol Very good long-term stabi Very good corrosion prote Approved and recommend Registered for use in the formation
220 °C 428 °F	300 000	_20 °C _4 °F	4203)	343)	265 to 295	ester oil, PFPE	polyurea, solid lubricant	beige	Klübersynth BH 72-422	094072	 Patented hybrid grease co bearings and slideways Enables direct grease app
200 °C 392 °F	1 000 000	–50 ℃ –58 ℃	110	26.5	265 to 295	PFPE	PTFE	white	Klüberalfa BF 83-102	090127	 The PFPE smooth-running Offers the highest speed f Excellent compatibility - ty
200 °C 392 °F	1 000 000	-40 °C -40 °F	1303)	203)	240 to 270	PFPE, ester oil	PTFE, polyurea	beige	Klübersynth BHP 72-102	094102	 Patented hybrid grease cc Extended service life also vehicle construction In many cases, enables di for initial lubrication
200 °C 392 °F	500 000	-40 °C -40 °F	400	40	280 to 310	synthetic hydrocarbon	polyurea	light beige	Klübersynth HB 74-401	004282	 For long-term lubrication o Good wear and corrosion Preferred choice for rolling or paper industry

Product colours may vary depending on the materials used.
 This lubricant is NSF H1 registered and was developed for incidental contact with products and packaging materials in the food-processing, cosmetics, pharmaceutical or animal feed industries. The use of this lubricant can contribute to increase safety of your production processes. We nevertheless recommend conducting an additional risk analysis, e.g. HACCP.
 The base oil viscosity stated herein is based on calculation as base oils are not miscible.

on examples

ture range

protection

r extreme alternating operating temperatures

or rolling bearings operating at high temperatures stability

orotection

mended by many OEMs

the food processing industry according to NSF H1²⁾

se concept for the long-term lubrication of slow, large rolling bearings, plain application on thin anticorrosion films, removing the need for initial cleaning

nning grease for high temperatures and speeds eed factor for this type of grease - typical of PFPE - with commercial elastomers and plastics

e concept for long-term lubrication also in wet and corrosive environments and in vibration applications, e.g.

es direct grease application on thin anticorrosion films, removing the need

on over a wide temperature range sion protection

lling and plain bearings operating under high loads, e.g. in the steel, cement

5



High-temperature greases

Upper service temp.	Speed factor n·dm [min ⁻¹ ·mm], approx.	Lower service temp.	Base oil viscosity DIN 51562 [mm²/s] at approx. 40 °C / 104 °F	Base oil viscosity DIN 51562 [mm²/s] at approx. 100 °C / 212 °F	Worked penetration DIN ISO 2137 [0.1 mm], approx.	Base oil	Thickener	Colour ¹⁾	Product	Article number	Description/application
180 °C 356 °F	1 000 000	-40 ℃ -40 °F	80	11	250 to 280	ester oil	polyurea	beige	Klübersynth BEP 72-82	094092	 For motor vehicle applica Excellent corrosion prote Long bearing life due to by vibration, high temper
180 °C 356 °F	1 000 000	-40 °C -40 °F	80	11	250 to 280	ester oil	polyurea	beige	Klübersynth BQP 72-82	094116	 For application in small e Excellent corrosion prote Long bearing life due to by vibration, high tempe
180 °C 356 °F	1 000 000	–30 ℃ –22 °F	55	8.8	280 to 310	ester oil	polyurea	whitish pink	Klübersynth HB 72-52	094028	 For the long-term lubrica For electric motor bearing
180 °C 356 °F	700 000	-40 ℃ -40 ℉	97.5	14	265 to 295	ester oil	polyurea	beige	Klübersynth HB 72-102	094068	 For long-term lubrication Very good corrosion pro For clutch release bearing
160 °C 320 °F	500 000	-30 ℃ -22 ℉	165	18	265 to 295	mineral oil, synthetic hydro- carbon	polyurea	light beige - light brown	PETAMO GHY 133 N	094061	 For the long-term lubrica water pump bearings, ht

1) Product colours may vary depending on the materials used.

on examples

plications, e.g. pulleys, generators, clutch release bearings rotection

to wear protection additives preventing premature material fatigue caused pperatures and high speeds

all electric motors, e.g. in fan bearings and windshield wiper motors protection

to wear protection additives preventing premature material fatigue caused apperatures and high speeds

prication of EPDM materials parings in ABS systems

tion within a wide service temperature range protection varings in motor vehicles

rication of, e.g., electric motor bearings, pulley bearings in motor vehicles, , hub units



Low-temperature greases

 Lower service temp.	Upper service temp.	Base oil viscosity DIN 51562 [mm²/s] at approx. 40 °C / 104 °F	Base oil viscosity DIN 51562 [mm²/s] at approx. 100 °C / 212 °F	Speed factor n⋅dm [min ⁻¹ ⋅mm], approx.	Worked penetration DIN ISO 2137 [0.1 mm], approx.	Base oil	Thickener	Colour ¹⁾	Product	Article number	Description/application
–70 °C –94 °F	110 °C 230 °F	9	2.6	1 000 000	280 to 320	ester oil	lithium soap	light yellow	ISOFLEX PDL 300 A	004074	 Heavy-duty grease for pa
–65 °C –85 °F	220 °C 428 °F	90	25	300 000	265 to 295	PFPE	PTFE	white	BARRIERTA KL 092	090123	 High- and low-temperatu long-term stability under

1) Product colours may vary depending on the materials used.

on examples

r particularly low temperatures and low friction moments

rature grease for low running torque at low temperatures and reliable der high temperatures and influence of media



High-purity and low-noise greases

Speed factor n·dm [min ⁻¹ ·mm], approx.	Upper service temp.	Lower service temp.	Base oil viscosity DIN 51562 [mm²/s] at approx. 40 °C / 104 °F	Base oil viscosity DIN 51562 [mm²/s] at approx. 100 °C / 212 °F	Worked penetration DIN ISO 2137 [0.1 mm], approx.	Base oil	Thickener	Colour ¹⁾	Product	Article number	Description/application
2 000 000	160 °C 320 °F	-40 °C -40 °F	60	9.5	220 to 250	synthetic hydrocarbon, ester oil	polyurea	beige	Klüberquiet BQ 74-73 N	094098	 For lifetime lubrication For vertically mounted be
1 000 000	180 °C 356 °F	-45 ℃ -49 ℃	72	9.5	250 to 280	ester oil	polyurea	beige	Klüberquiet BQ 72-72	094008	 For lifetime and long-term For double-sealed and c. Applied e.g. in electric mediate
1 000 000	150 °C 302 °F	–50 °C –58 °F	25	5	245 to 275	ester oil	lithium soap	beige- light yellow	Klüberquiet BQ 42-32	094074	 For low temperatures and For the lifetime lubrication
700 000	180 °C 356 °F	_40 °C _40 °F	100	11	250 to 280	ester oil	polyurea	beige	Klüberquiet BQH 72-102	094023	 For the long-term and life For double-sealed and ca Applicable in electric mot

1) Product colours may vary depending on the materials used.

on examples

I bearings subject to high speeds and/or with a rotating outer ring

erm lubrication at high and low temperatures d capped rolling bearings c motors, fans, air conditioning systems and hard disc drives

and low friction moments ation of double-sealed ball bearings like miniature and instrument bearings

lifetime lubrication at high temperatures d capped rolling bearings motors, car radiator fans, etc.



High-speed and spindle bearing greases

Upper service temp.	Lower service temp.	Base oil viscosity DIN 51562 [mm²/s] at approx. 40 °C / 104 °F	Base oil viscosity DIN 51562 [mm²/s] at approx. 100 °C / 212 °F	Worked penetration DIN ISO 2137 [0.1 mm], approx.	Base oil	Thickener	Colour ¹⁾	Product	Article number	Description/application
120 °C 248 °F	0 °C 32 °F	30	6	250 to 280	ester oil	lithium soap	beige	Klüberspeed BFP 42-32	004271	 For hybrid bearings, ang For horizontal, vertical ar For very high speeds
120 °C 248 °F	–50 °C –58 °F	22	5	220 to 250	synthetic hydrocarbon, ester oil	polyurea	beige	Klüberspeed BF 72-23	004246	 For high-speed spindle b Especially for inclined an
120 ℃ 248 ℉	-50 ℃ -58 °F	22	5	250 to 280	ester oil, synthetic hydrocarbon	polyurea	beige	Klüberspeed BF 72-22	004043	 For high-speed spindle b Preferably for horizontal s Very good resistance to v Very good corrosion prof
160 °C 320 °F	-40 ℃ -40 ℉	60	9.5	220 to 250	synthetic hydrocarbon, ester oil	polyurea	beige	Klüberquiet BQ 74-73 N	094098	 For high speeds and vert For lifetime lubrication
130 °C 266 °F	-40 °C -40 °F	21	4.5	265 to 295	mineral oil, ester oil, synthetic hydrocarbon	barium complex soap	beige	ISOFLEX NBU 15	004026	 The spindle bearing grea Tried and tested over ma
120 °C 248 °F	_50 °C _58 °F	15	3.5	265 to 295	mineral oil, ester oil	lithium soap	yellow	ISOFLEX LDS 18 Special A	004013	 Light grease with low sta bearings Applicable e.g. in starter utensils For horizontal shafts only
	service temp. 120 °C 248 °F 120 °C 248 °F 120 °C 248 °F 120 °C 248 °F 120 °C 248 °F 130 °C 266 °F 120 °C	service temp. service temp. 120 °C 248 °F 0 °C 32 °F 120 °C 248 °F -50 °C -58 °F 120 °C 248 °F -40 °C -40 °F 160 °C 320 °F -40 °C -40 °F 130 °C 266 °F -40 °C -40 °F 120 °C -50 °C	service temp. service temp. viscosity DIN 51562 [mm²/s] at approx. 40 °C / 104 °F 120 °C 248 °F 0 °C 32 °F 30 120 °C 248 °F -50 °C -58 °F 22 120 °C 248 °F -50 °C -58 °F 22 120 °C 248 °F -50 °C -58 °F 22 160 °C 320 °F -40 °C -40 °F 60 130 °C 266 °F -40 °C -40 °F 21 120 °C -50 °C 15	service temp.service temp.viscosity DIN 51562 [mm²/s] at approx. $40 °C / 104 °F$ viscosity DIN 51562 [mm²/s] at approx. $100 °C / 212 °F$ 120 °C 248 °F0 °C 32 °F306120 °C 248 °F-50 °C -58 °F225120 °C 248 °F-50 °C -58 °F225120 °C 248 °F-50 °C -58 °F225120 °C 248 °F-50 °C -58 °F225120 °C 248 °F-50 °C -58 °F225130 °C 260 °F-40 °C -40 °F609.5130 °C 266 °F-40 °C -40 °F214.5120 °C-50 °C -50 °C153.5	service temp. service temp. viscosity DIN 51562 [mm²/s] at approx. 40 °C / 104 °F viscosity DIN 51562 [mm²/s] at approx. 100 °C / 212 °F penetration DIN ISO 2137 [0.1 mm], approx. 120 °C 248 °F 0 °C 32 °F 30 6 250 to 280 120 °C 248 °F -50 °C -58 °F 22 5 220 to 250 120 °C 248 °F -50 °C -58 °F 22 5 250 to 280 120 °C 248 °F -50 °C -58 °F 22 5 250 to 280 120 °C 248 °F -50 °C -58 °F 22 5 250 to 280 160 °C 320 °F -40 °C -40 °F 60 9.5 220 to 250 130 °C 266 °F -40 °C -40 °F 21 4.5 265 to 295 120 °C -50 °C 15 3.5 265 to 295	service temp.service temp.viscosity DIN 51562 [mm²/s] at approx. $40 ^{\circ}C /$ $104 ^{\circ}F$ viscosity DIN 51562 [mm²/s] at approx. $100 ^{\circ}C /$ $212 ^{\circ}F$ penetration DIN 50 2137 [0.1 mm], approx. $100 ^{\circ}C /$ $212 ^{\circ}F$ 120 $^{\circ}C$ $248 ^{\circ}F$ 0 $^{\circ}C$ $32 ^{\circ}F$ 306250 to 280ester oil120 $^{\circ}C$ $248 ^{\circ}F$ $-50 ^{\circ}C$ $-58 ^{\circ}F$ 225220 to 250synthetic hydrocarbon, ester oil120 $^{\circ}C$ $248 ^{\circ}F$ $-50 ^{\circ}C$ $-58 ^{\circ}F$ 225250 to 280ester oil120 $^{\circ}C$ $248 ^{\circ}F$ $-50 ^{\circ}C$ $-58 ^{\circ}F$ 225250 to 280ester oil120 $^{\circ}C$ $248 ^{\circ}F$ $-50 ^{\circ}C$ $-58 ^{\circ}F$ 225250 to 280ester oil, synthetic hydrocarbon, ester oil160 $^{\circ}C$ $320 ^{\circ}F$ $-40 ^{\circ}C$ $-40 ^{\circ}F$ 609.5220 to 250synthetic hydrocarbon, ester oil130 $^{\circ}C$ $266 ^{\circ}F$ $-40 ^{\circ}C$ $-40 ^{\circ}F$ 214.5265 to 295mineral oil, ester oil, synthetic hydrocarbon120 $^{\circ}C$ $-50 ^{\circ}C$ 153.5265 to 295mineral oil, ester oil, synthetic hydrocarbon	service temp.service temp.viscosity DIN 51562 [mm?/s] at approx. 40 °C / 104 °Fviscosity DIN 51562 [approx. 100 °C / 212 °Fpenetration DIN ISO 2137 [0,1 mm], approx. 100 °C / 248 °Fpenetration model120 °C 248 °F-50 °C -58 °F225220 to 250synthetic hydrocarbon, ester oilpolyurea120 °C 248 °F-50 °C -58 °F225250 to 280ester oil, synthetic hydrocarbonpolyurea120 °C 248 °F-40 °C -40 °F609.5220 to 250synthetic hydrocarbon, ester oilpolyurea130 °C 266 °F-40 °C -40 °F214.5265 to 295mineral oil, synthetic hydrocarbonbarium complex soap120 °C 266 °F-50 °C153.5265 to 295mineral oil, interal oil, synthetic hydrocarbonIthium soap	service temp.service temp.viscosity DIN 51562 [mm ² /s] at approx. $40 \degree C$ $248 \degree F$ viscosity DIN 51562 [mm ² /s] at approx. $104 \degree F$ penetration DIN 1502 2137 [D1 mm], approx. $120 \degree C$ $212 \degree F$ penetration DIN 100 \degree C / $212 \degree F$ penetration DIN 100 \degree C / $212 \degree F$ penetration DIN 100 \degree C / $212 \degree F$ penetration DIN 100 \degree C / $250 to 280$ ester oillithium soapbeige120 $\degree C$ $248 \degree F$ $-50 \degree C$ $-58 \degree F$ 225220 to 250synthetic hydrocarbon, ester oilpolyureabeige120 $\degree C$ $248 \degree F$ $-50 \degree C$ $-58 \degree F$ 225250 to 280ester oil, synthetic hydrocarbon, ester oilpolyureabeige120 $\degree C$ $248 \degree F$ $-50 \degree C$ $-58 \degree F$ 225250 to 280ester oil, synthetic hydrocarbon, ester oilpolyureabeige160 $\degree C$ $320 \degree F$ $-40 \degree C$ $-40 \degree C$ 60 9.5 220 to 250synthetic hydrocarbon, ester oilpolyureabeige160 $\degree C$ $320 \degree F$ $-40 \degree C$ $-40 \degree F$ 21 4.5 265 to 295mineral oil, ester oil, synthetic hydrocarbonbeige130 $\degree C$ $266 \degree F$ $-40 \degree C$ $-40 \degree F$ 21 4.5 265 to 295mineral oil, ester oil, synthetic hydrocarbonbeige120 $\degree C$ $-50 \degree C$ 15 3.5 265 to 295mineral oil, ester oil, synthetic hydrocarbonbeige	service temp.service temp.viscosity piN 51652 (mm²/s] at approx. 40 °C / 104 °Fviscosity piny 51622 mm²/s] at approx. 100 °C / 212 °Fpenetration piny 51622 (0.1 mm], approx. 100 °C / 212 °Fpenetration piny 51622 (0.1 mm], approx. 100 °C / 212 °Fpenetration piny 51622 (0.1 mm], approx. 100 °C / 212 °Fpenetration piny 5162 (0.1 mm], approx. 100 °C / 212 °Fpenetration piny 5162 (0.1 mm], approx. 100 °C / 212 °Fpenetration piny 5162 (0.1 mm], approx. 100 °C / 220 °C / 248 °Fpenetration piny 5162 (0.1 mm], approx. 120 °C / 248 °Fpenetration piny 5162 (0.1 mm], approx.penetration piny 5162 (0.1 mm], approx. 120 °C / 248 °Fkibberspeed BFP 42-32120 °C / 248 °F-50 °C / -58 °F225220 to 250 250 to 280synthetic hydrocarbon, ester oilpolyurea polyureabeigeKibberspeed BF 72-23120 °C / 248 °F-50 °C / -58 °F225220 to 250synthetic hydrocarbon, ester oilpolyurea polyureabeigeKibberspeed BF 72-22160 °C / 248 °F-40 °F609.5220 to 250synthetic hydrocarbon, ester oilpolyurea soapbeigeKibberspeed BF 72-22160 °C / 248 °F-40 °F609.5220 to 250synthetic hydrocarbon, ester oilpolyurea soapbeigeKibberspeed BC 74-73 N130 °C / 266 °F-40 °F609.520 to 250synthetic hydrocarbon, ester oil <t< td=""><td>service temp.service temp.viscosity toll \$5562 [nm//s] at approx. 40 °C / 104 °Fviscosity point \$562 int \$20 °C 104 °Fviscosity point \$562 int \$20 °C 104 °Fviscosity point \$562 int \$20 °C int \$20 °C int \$20 °Cviscosity point \$562 int \$20 °C int \$20 °C int \$20 °Cviscosity point \$562 int \$20 °C int \$20 °Cviscosity point \$20 °C int \$20 °C int \$20 °Cviscosity point \$20 °C int \$20 °C<!--</td--></td></t<>	service temp.service temp.viscosity toll \$5562 [nm//s] at approx. 40 °C / 104 °Fviscosity point \$562 int \$20 °C 104 °Fviscosity point \$562 int \$20 °C 104 °Fviscosity point \$562 int \$20 °C int \$20 °C int \$20 °Cviscosity point \$562 int \$20 °C int \$20 °C int \$20 °Cviscosity point \$562 int \$20 °C int \$20 °Cviscosity point \$20 °C int \$20 °C int \$20 °Cviscosity point \$20 °C int \$20 °C </td

1) Product colours may vary depending on the materials used.

on examples

ngular contact ball and cylindrical roller bearings I and inclined mounting positions

le bearings I and vertical, but also for horizontal shafts in machine tools

lle bearings in machine tools ntal shafts e to water protection

vertical mounting position and/or rotating outer ring

rease for machine tools many years and in many applications

starting torque for low temperatures and high speeds in rolling and plain

ter motors, machine tool spindles, textile spindles and spindles in electric

only

Special greases for the heavy industry

Upper service temp.	Lower service temp.	Base oil viscosity DIN 51562 [mm²/s] at approx. 40 °C / 104 °F	Base oil viscosity DIN 51562 [mm²/s] at approx. 100 °C / 212 °F	Worked penetration DIN ISO 2137 [0.1 mm], approx.	Base oil	Thickener	Colour ¹⁾	Product	Article number	Description / application
Heavy-duty	/ lubricating g	reases								
150 °C 302 °F	−10 °C 14 °F	1 500	60	310 to 340	mineral oil	lithium soap, solid lubricant	black- grey	Klüberlub BE 41-1501	097115	- For low speeds
140 °C 284 °F	−20 °C −4 °F	540	28	265 to 295	mineral oil	lithium soap	brown	Klüberlub BE 41-542	020269	- For low and medium spec
140 °C 284 °F	-30 ℃ -22 ℉	130	15	265 to 295	synthetic hydrocarbon, mineral oil	lithium special soap, solid lubricant	yellow	Klüberlub BEM 41-122	020158	 For pivoting bearings, pla oscillating movements Decreases tribocorrosion
Heavy-duty	y greases for v	vet processing z	ones			-				
160 °C 320 °F	-40 °C -40 °F	400	40	290 to 320	synthetic hydrocarbon	calcium complex soap	brown	Klübersynth HBE 94-401	004295	 Synthetic special grease and elevated temperature Excellent wear and corro
140 °C 284 °F	-15 ℃ 5 °F	220	19	245 to 275	mineral oil	calcium special soap	light brown	Klüberplex BE 31-222	017132	 For ball bearings subject At medium rotating speed
140 °C 284 °F	-10 °C 14 °F	500	31	245 to 275	mineral oil	calcium special soap	light brown	Klüberplex BE 31-502	017126	 For ball bearings subject For low speeds
130 °C 266 °F	_20 °C _4 °F	220	19	285 to 315	mineral oil	barium complex soap	light brown	STABURAGS NBU 12/300 KP	017062	 Hot water resistant Long-term grease for rolli Good pressure absorptio For rolling bearings with h

1) Product colours may vary depending on the materials used.



ion examples

speeds

plain bearings and rolling bearings subject to high surface pressure and/or

sion by forming tribo-layers

use for long-term or lifetime lubrication in applications subject to high loads tures prrosion protection as well as very good resistance to water

ect to high loads in wet processing zones beed

ect to high loads in wet processing zones

rolling and plain bearings ption capacity ith high percentages of sliding friction



Special greases for other industrial applications

		[mm²/s] at approx. 40 °C / 104 °F	DIN 51562 [mm²/s] at approx. 100 °C / 212 °F	DIN ISO 2137 [0.1 mm], approx.					number	
greases for os	cillating move	ements								
150 °C 302 °F	-40 °C -40 °F	130	14	310 to 340	synthetic hydrocarbon, mineral oil	lithium special soap	yellow	Klüberplex BEM 41-141	020320	 For heavy-duty rolling and For vibrations and oscillat Applicable e.g. in main be
140 °C 284 °F	_35 °C _31 °F	130	15.5	265 to 295	synthetic hydrocarbon, mineral oil	calcium special soap	beige- light brown	Klüberplex BEM 34-132	017141	 For the long-term and life Good wear protection in a For applications like car h
140 °C 284 °F	-30 °C -22 °F	290	20	310 to 340	mineral oil	lithium special soap	yellow- brown	MICROLUBE GL 261	20195	 For rolling and plain beari For vibration and oscillatir Good pressure absorptio Good wear protection Pumpable through auto lu
greases for ro	ller bearings		_	_						
160 °C 320 °F	-40 °C -40 °F	48	7.6	245 to 275	ester oil, synthetic hydrocarbon	lithium special soap	yellow- brown	Klübersynth BL 42-42	004264	 Optimised oil supply for re Product streamlining is potemperature range
140 °C 284 °F	-40 °C -40 °F	47	8	275 to 305	synthetic hydrocarbon	lithium special soap	beige	Klübersynth BM 44-42	004261	 For long-term or lifetime lul contact or small oscillating Tried and tested in autom
150 °C 302 °F	–50 °C –58 °F	100	14.5	265 to 295	synthetic hydrocarbon	lithium soap	beige	ISOFLEX TOPAS L 152	004144	 For medium-sized and lar Wide service temperature
	150 °C 302 °F 140 °C 284 °F 140 °C 284 °F 140 °C 284 °F 160 °C 320 °F 140 °C 284 °F 140 °C	150 °C -40 °C 302 °F -40 °F 140 °C -35 °C 284 °F -31 °F 140 °C -30 °C 284 °F -22 °F 140 °C -40 °C 284 °F -22 °F 140 °C -40 °C 284 °F -22 °F 160 °C -40 °C 320 °F -40 °F 140 °C -40 °F 140 °C -40 °F 140 °C -40 °F 150 °C -50 °C	reases for oscillating movements 150 °C -40 °C 130 302 °F -40 °F 130 140 °C -35 °C 130 284 °F -31 °F 130 140 °C -30 °C 290 284 °F -22 °F 290 160 °C -40 °C 48 160 °C -40 °F 48 140 °C -40 °F 47 150 °C -50 °C 100	reases for oscillating movements $150 \degree C$ $-40 \degree C$ 130 14 $302 \degree F$ $-40 \degree F$ 130 14 $140 \degree C$ $-35 \degree C$ 130 15.5 $284 \degree F$ $-31 \degree F$ 130 15.5 $140 \degree C$ $-30 \degree C$ 290 20 $140 \degree C$ $-30 \degree C$ 290 20 $140 \degree C$ $-30 \degree C$ 290 20 $7eases for roller bearings$ 7.6 7.6 $160 \degree C$ $-40 \degree C$ 48 7.6 $140 \degree C$ $-40 \degree F$ 477 8 $140 \degree C$ $-40 \degree F$ 477 8 $150 \degree C$ $-50 \degree C$ 100 14.5	reases for oscillating movements $150 \degree C$ $-40 \degree C$ 130 14 $310 to 340$ $302 \degree F$ $-40 \degree F$ 130 15.5 $265 to 295$ $140 \degree C$ $-35 \degree C$ 130 15.5 $265 to 295$ $140 \degree C$ $-31 \degree F$ 130 15.5 $265 to 295$ $140 \degree C$ $-30 \degree C$ 290 20 $310 to 340$ $140 \degree C$ $-30 \degree C$ 290 20 $310 to 340$ reases for roller bearings $160 \degree C$ $-40 \degree C$ 48 7.6 $245 to 275$ $160 \degree C$ $-40 \degree F$ 48 7.6 $245 to 275$ $140 \degree C$ $-40 \degree F$ 47 8 $275 to 305$ $140 \degree C$ $-40 \degree F$ 47 8 $275 to 305$ $150 \degree C$ $-50 \degree C$ 100 14.5 $265 to 295$	Image: Second synthetic	reases for oscillating movements 150 °C 302 °F -40 °C -40 °F 130 14 310 to 340 synthetic hydrocarbon, mineral oil lithium special soap 140 °C 284 °F -35 °C -31 °F 130 15.5 265 to 295 synthetic hydrocarbon, mineral oil calcium special soap 140 °C 284 °F -30 °C -22 °F 290 20 310 to 340 mineral oil lithium special soap reases for roller bearings 160 °C 320 °F -40 °C -40 °F 48 7.6 245 to 275 ester oil, synthetic hydrocarbon lithium special soap 140 °C 284 °F -40 °C -40 °F 47 8 275 to 305 synthetic hydrocarbon lithium special soap 140 °C 284 °F -40 °F 47 8 275 to 305 synthetic hydrocarbon lithium special soap 150 °C -50 °C 100 14.5 265 to 295 synthetic lithium soap	reases for oscillating movements 150 °C -40 °C 130 14 310 to 340 synthetic hydrocarbon, mineral oil lithium special soap yellow 140 °C -35 °C 130 15.5 265 to 295 synthetic hydrocarbon, mineral oil calcium special soap beige- light brown 140 °C -31 °F 130 15.5 265 to 295 synthetic hydrocarbon, mineral oil calcium special soap beige- light brown 140 °C -30 °C 290 20 310 to 340 mineral oil lithium special soap yellow- brown 140 °C -40 °C 48 7.6 245 to 275 ester oil, synthetic hydrocarbon lithium special soap yellow- brown 160 °C -40 °F 48 7.6 245 to 275 ester oil, synthetic hydrocarbon lithium special soap yellow- brown 140 °C -40 °F 47 8 275 to 305 synthetic hydrocarbon lithium special soap beige 150 °C -50 °C 100 14.5 265 to 295 synthetic lithium soap beige	reases for oscillating movements -40 °C -40 °C 130 14 310 to 340 synthetic hydrocarbon, mineral oil lithium special lisap yellow Klüberplex BEM 41-141 140 °C 284 °F -35 °C -31 °F 130 15.5 265 to 295 synthetic hydrocarbon, mineral oil calcium special scap beige- light beige- light Klüberplex BEM 34-132 140 °C 284 °F -30 °C -22 °F 290 20 310 to 340 mineral oil lithium special scap beige- light MICROLUBE GL 261 140 °C 284 °F -20 °C -22 °F 290 20 310 to 340 mineral oil lithium special scap yellow- brown MICROLUBE GL 261 reases for roller bearings 160 °C 320 °F -40 °F 48 7.6 245 to 275 set oil, synthetic hydrocarbon lithium special scap yellow- brown Klübersynth BL 42-42 140 °C 284 °F -40 °F 47 8 275 to 305 synthetic hydrocarbon lithium special scap beige Klübersynth BM 44-42 150 °C -50 °C 100 14.5 265 to 295 synthetic hydrocarbon lthium scap beige Klübersynth BM 44-42 <	reases for oscillating movements Id Id <thid< th=""> <thid< th=""> Id</thid<></thid<>

1) Product colours may vary depending on the materials used.

on examples

and plain bearings cillations n bearings in wind turbines

lifetime lubrication of rolling bearings and linear motion guides in oscillating and small movements ar hub units, water pump bearings and shaft bearings in power trains

earings llating movements otion capacity

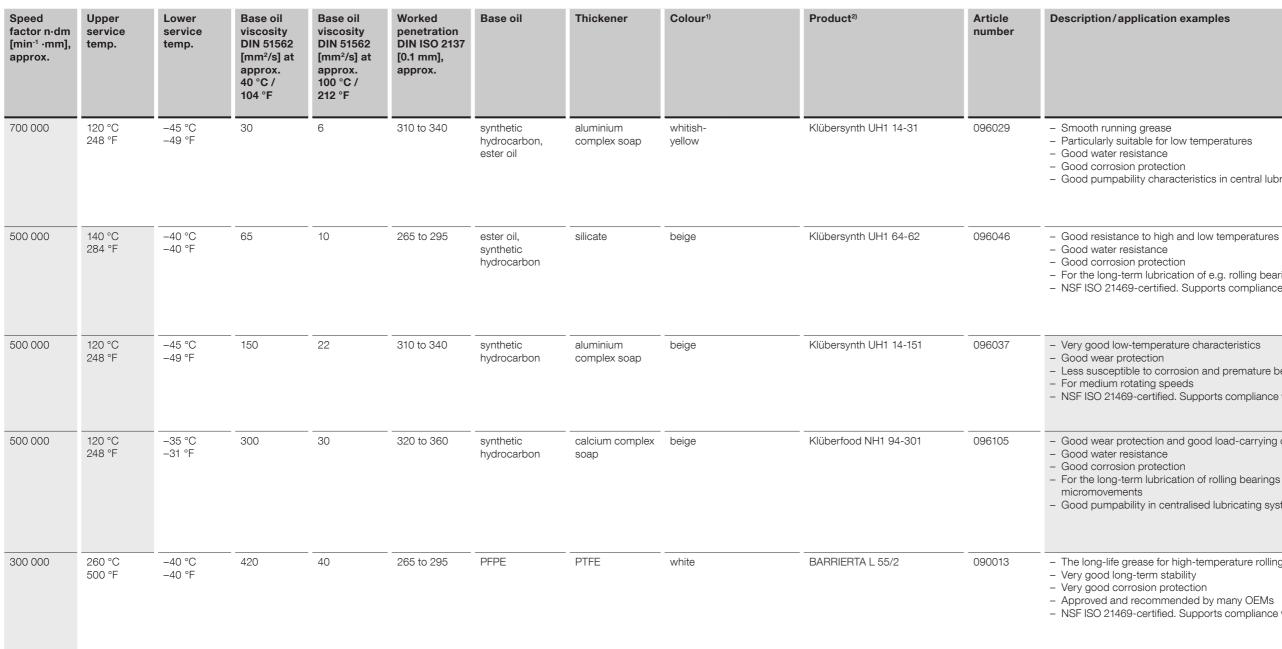
to lubrication systems

or rolling bearings with linear contact s possible due to manifold application options enabled by a wide service

e lubrication of heavily loaded rolling bearings and ball screws, also for linear ting motion tomotive applications, e.g. steering systems

d large rolling bearings with an elevated percentage of sliding friction ture range, particularly suitable for low temperatures

Greases for food-processing technology and the pharmaceutical industry



1) Product colours may vary depending on the materials used. 2) This lubricant is NSF H1 registered and was developed for incidental contact with products and packaging materials in the food-processing, cosmetics, pharmaceutical or animal feed

industries. The use of this lubricant can contribute to increase safety of your production processes. We nevertheless recommend conducting an additional risk analysis, e.g. HACCP.



- Good pumpability characteristics in central lubrication systems

- For the long-term lubrication of e.g. rolling bearings, joints, lifting cylinders, cam discs - NSF ISO 21469-certified. Supports compliance with the hygienic requirements of your production

- Less susceptible to corrosion and premature bearing failure due to good water resistance

- NSF ISO 21469-certified. Supports compliance with the hygienic requirements of your production

- Good wear protection and good load-carrying capacity

- For the long-term lubrication of rolling bearings and linear guides, also when performing

- Good pumpability in centralised lubricating systems

- The long-life grease for high-temperature rolling bearings

- NSF ISO 21469-certified. Supports compliance with the hygienic requirements of your production



Electroconductive lubricating greases

re b D	lectric esistance ased on IN 53482 ²⁾ 2 x cm]	Upper service temp.	Lower service temp.	Base oil viscosity DIN 51562 [mm²/s] at approx. 40 °C / 104 °F	Base oil viscosity DIN 51562 [mm²/s] at approx. 100 °C / 212 °F	Speed factor n·dm [min ⁻¹ ·mm], approx.	Worked penetration DIN ISO 2137 [0.1 mm], approx.	Base oil	Thickener	Colour ¹⁾	Product	Article number	Descript
1	10 000	150 °C 302 °F	-40 ℃ -40 ℉	150	19	1 000 000	280 to 295	synthetic hydrocarbon	lithium soap, solid lubricant	black	Klüberlectric BE 44-152	091053	 For the in elect guides

Product colours may vary depending on the materials used.
 Spark gap 1 cm, electrode surface 1 cm²

ription/application examples

the long-term lubrication of rolling bearings subject to static electricity, e.g. lectric motors, paper making machines, copying machines, film stretchers, des in belt conveyors and fans



Cleaning and protecting rolling bearings

Description/application examples	Solvent	Colour ¹⁾	Product
Solvent and cleansing agent for the cleansing of metallic surfaces	hydrocarbon	colourless	Klüber Metallreiniger SMR-Sp
Solvent and cleansing agent for pre-cleaning that can be used in order to achieve optimum adhesion for the subsequent application of PFPE / PTFE-based grease	PFPE	colourless, clear	Klüberalfa XZ 3-1

Description/application examples	Base oil	Thickener	Base oil viscosity DIN 51562 [mm²/s] at approx. 40 °C / approx. 104 °F	Colour ¹⁾	Product	Article number
Anticorrosion fluid with lubricating effect for rolling bearings offering good wear protection in case of micro-movements	synthetic hydrocarbon	lithium soap	40	beige, milky	Klübersynth BZ 44-4000	047076
Synthetic lubricating and corrosion protection oil for the protection of rolling bearings	ester oil, synthetic hydrocarbon	without	20	brown, clear	Klübersynth MZ 4-17	047122
PFPE-based anticorrosion fluid for bearing protection. Can be followed by PFPE/PTFE greases without pre-cleaning.	PFPE	without	-	colourless, clear	Klüberalfa XZ 3-3	810036

1) Product colours may vary depending on the materials used.

	Article number
-Spray	081244
	810033



Assembly pastes

Description/application examples	Upper service temp.	Lower service temp.	Base oil viscosity DIN 51562 [mm²/s] at approx. 40 °C / 104 °F	Base oil viscosity DIN 51562 [mm²/s] at approx. 100 °C / 212 °F	Worked penetration DIN ISO 2137 [0.1 mm], approx.	Base oil	Thickener	Co
High-temperature lubricating paste for the assembly of rolling bearings and positive connections. Above 200 $^\circ\text{C}/392$ $^\circ\text{F}$ it acts as a dry lubricant. Makes dismantling easier	1 000 °C 1 832 °F	-40 ℃ -40 °F	42	10	325 to 340	ester oil, PAG	combination of solid lubricants	blad
Fretting corrosion-preventing lubricating and assembly paste with solid lubricants that is suitable for pressing on and pressing in of rolling bearings	150 °C 302 °F	–15 ℃ 5 °F	46	6.5	250 to 280	mineral oil	calcium complex soap	bei
White lubricating and assembly paste for applications in the food-processing, cosmetics, pharmaceutical and animal feed industries ²⁾	120 °C 248 °F	–45 °C –49 °F	200	75	310 to 340	synthetic hydrocarbon	PTFE/solid lubricants	whi

Product colours may vary depending on the materials used.
 This lubricant is NSF H1 registered and was developed for incidental contact with products and packaging materials in the food-processing, cosmetics, pharmaceutical or animal feed industries. The use of this lubricant can contribute to increase safety of your production processes. We nevertheless recommend conducting an additional risk analysis, e.g. HACCP.

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olour ¹⁾	Product	Article number
ack	Klüberpaste HEL 46-450	089032
eige	Klüberpaste ME 31-52	005115
hite	Klüberpaste UH1 84-201	005113

On the intention of this lubricant selection brochure



The intention of this lubricant selection is to provide a logical guide through the Klüber Lubrication specialised product range. The structure of the brochure considers firstly the various application requirements and then leads you toward selection of the appropriate lubricant solution.

Whenever products appear to have similar properties, we highlight the differences in grey in the respective fields to assist with the final product selection. Should you not find a lubricant "tailored" exactly to your requirements we recommend contact with your local Klüber Lubrication representative, who will be able to offer additional assistance with product selection from our extensive lubricant portfolio.

We generally recommend to consult our lubrication experts prior to selecting a lubricant.

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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 80 years.

