

# Klüberspeed BF 72-22

High-speed lubricating grease



## Description

Klüberspeed BF 72-22 is a high-performance special grease with a synthetic base oil and a polyurea thickener. The base oil viscosity and its viscosity-temperature characteristics allow Klüberspeed BF 72-22 to be used for a wide range of speeds and temperatures. Tests have shown that Klüberspeed BF 72-22 is suitable for extremely high speeds; the speed factors attained were 2 million and higher. Klüberspeed BF 72-22 also allows shorter running-in times and has a long service life.

## Application

Klüberspeed BF 72-22 is primarily recommended for spindles in milling, grinding and drilling machines and lathes running at very high speeds and high permanent temperatures. Such high speeds are frequently encountered in motor-powered spindle bearings. Klüberspeed BF 72-22 is also suitable for other high-speed bearings as are found in power tools, electric motors, etc.

## Application notes

Klüberspeed BF 72-22 can be filled into the bearings using normal grease application tools (e.g. spatula, grease gun). Application by means of central lubricating systems and metering devices is also possible.

## Minimum shelf life

The minimum shelf life is approx. 24 months if the product is stored in the original closed container in a dry place.

## Pack sizes

400 g	grease cartridge
1 kg	can
25 kg	bucket

## Klüberspeed BF 72-22

- Excellent high-speed characteristics
- Very good low-temperature characteristics
- Very good water and corrosion resistance
- Faster running-in of spindle bearings

## Product data

Colour	beige
Service temperature range, approx. *	-50 to 120 °C
Drop point, DIN ISO 2176, °C	> 220
Worked penetration, DIN ISO 2137, at 25 °C, 0.1 mm	250 - 280
Density, at 20 °C, g/cm <sup>3</sup>	0.92
Flow pressure, DIN 51805, mbar, at -50 °C	< 1400
Kinematic viscosity of the base oil, DIN 51562, pt. 01, Ubbelohde at 40°C, mm <sup>2</sup> /s, approx. at 100°C, mm <sup>2</sup> /s, approx.	22 5
Low-temperature torque, IP 186/93, -50 °C Starting torque, Nmm Running torque, Nmm	< 1000 < 100
Water resistance, DIN 51 807, pt. 1 3 h / 90 °C, rating	1 - 90
Corrosion protection, DIN 51 802; Emcor test (1 week, distilled water), corrosion rating	1
Oil separation, DIN 51 817, 7 d / 40 °C, wt %	< 3
Speed factor **, $n \times d_m$	> 2 million
Grease service life determined on spindle bearing tester, test bearing B 7008 C, 24,000 min <sup>-1</sup> , h	> 5000

\* 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.

\*\* 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.

# Klüberspeed® BF 72-22

## Safety Data Sheet

<p><b>1.1 Product name:</b> Klüberspeed BF 72-22 <b>Code-No.:</b> 004 043 <b>28.11.2000</b></p>	<p><b>9. Physical and chemical properties</b>          Form: paste          Colour: beige          Odour: characteristic          Drop point: &gt; 200 °C, DIN ISO 2176          Flash point: &gt; 200 °C (base oil)          Flammability: not applicable          Ignition temperature: not applicable          Autoflammability: not applicable          Lower explosion limit: not applicable          Upper explosion limit: not applicable          Vapour pressure-first: not applicable          Density: approx. 0.92 g/cm<sup>3</sup>, 20 °C          Water solubility: insoluble          pH value: not applicable          Kinematic viscosity: not applicable          Further information: none</p>
<p><b>1.2</b> Klüber Lubrication München KG Geisenhausenerstraße 7 D-81379 München Tel. ++49 - 89 78 76 - 0 telephone exchange Fax: ++49 - 89 78 76 - 333</p> <p><b>Emergency telephone no.:</b> <b>++49 - 89 7876 - 0</b></p>	<p><b>10. Stability and reactivity</b>          Conditions to avoid: None          Materials to avoid: Strong oxidizing agents          Hazardous decomposition products: None under normal use          Additional information: None</p>
<p><b>2. Composition / information on ingredients</b>          Chemical characterization (preparation): Synthetic hydrocarbon oil, ester oil, polyurea          Additional information: No hazardous ingredients</p>	<p><b>11. Toxicological information</b>          The toxicological data has been taken from products of similar composition          Acute toxicity: LD<sub>50</sub>/oral/rat = &gt; 2 g/kg (literature data)          Chronic toxicity: None          Human experience: Prolonged skin contact may cause skin irritation and/or dermatitis</p>
<p><b>3. Hazards identification</b>          No particular hazards known</p>	<p><b>12. Ecological information</b>          Information on elimination (persistence and degradability): Product is insoluble in water. May be separated out mechanically in purification plants          Behaviour in environmental compartments: Ecological injuries are not known or expected under normal use          Ecotoxic effects: Aquatic toxicity is unlikely due to low solubility          Additional information: Should not be released into the environment</p>
<p><b>4. First aid measures</b>          After inhalation: Not applicable          After contact with skin: Wash off with soap and plenty of water          After contact with eyes: Rinse with plenty of water          After ingestion: Do not induce vomiting. Obtain medical attention          Advice to doctor: Treat symptomatically</p>	<p><b>13. Advice on Disposal</b>          Disposal: Can be incinerated when in compliance with local, state and federal regulations          Dispose of contaminated packaging and recommended cleaning: Offer rinsed packaging material to local recycling facilities</p>
<p><b>5. Fire-fighting measures</b>          Suitable extinguishing media: Water spray, foam, dry powder, carbon dioxide (CO<sub>2</sub>)          Unsuitable extinguishing media: High volume water jet          Special Hazards: In case of fire the following can be released: Carbon monoxide, hydrocarbons          Special protective equipment for firefighters: Standard procedure for chemical fires          Additional information: Water mist may be used to cool closed containers. In the event of fire and/or explosion do not breathe fumes</p>	<p><b>14. Transport information</b>          GGVS / GGVE: not applicable          ADN / ADNR: not applicable          IMDG-Code: not applicable          ICAO / IATA-DGR: not applicable          Further information: Not classified as dangerous in the meaning of transport regulations</p>
<p><b>6. Accidental release measures</b>          Personal precautions: Not required          Environmental precautions: Do not flush into surface water or sanitary sewer system          Methods for cleaning up / taking up: Use mechanical handling equipment. Dispose of absorbed material in accordance with the regulations          Additional information: None</p>	<p><b>15. Regulatory information</b>          Labelling according to EU-guidelines: The product does not require a hazard warning label in accordance with EC-directives/German regulations on dangerous substances          National regulations</p>
<p><b>7. Handling and storage</b>          Advice on safe handling: No special handling advice required          Advice on protection against fire and explosion: No special precautions required          Requirements on storage rooms and vessels: No special storage conditions required          Incompatible materials: Incompatible with oxidizing agents. Do not store together with food          Further information on storage conditions: Store at room temperature in the original container</p>	<p><b>16. Other information</b>          Issue-department of Safety Data Sheet: Chemical Documentation,          Tel.: ++49 - 89 7876 - 564</p>
<p><b>8. Exposure controls / personal protection</b>          Additional advice on system design: Not applicable          Ingredients and specific control parameters: None          Respiratory protection: No special protective equipment required          Hand protection: No special protective equipment required          Eye protection: No special protective equipment required          Body protection: No special protective equipment required          Other protection measures: No special protective equipment required          General protection and hygiene measures: Avoid prolonged and/or repeated contact with skin. Remove soiled or soaked clothing immediately. Clean skin thoroughly after work; apply skin cream</p>	

The data in this product information is based on our general experience and knowledge at the time of printing and is intended to give information of possible applications to a reader with technical experience. It constitutes neither an assurance of product properties nor does it release the user from the obligation of performing preliminary tests with the selected product. We recommend contacting our Technical Consulting Staff to discuss your specific application. If required and possible we will be pleased to provide a sample for testing. Klüber products are continually improved. Therefore, Klüber Lubrication reserves the right to change all the technical data in this product information at any time without notice.



Klüber Lubrication München KG, a member of the Freudenberg group