

Description:

Klüberplex BEM 41-132 is based on synthetic hydrocarbon oil, mineral oil and special lithium soap. Selected additives ensure optimum resistance to oxidation, wear and corrosion. Klüberplex BEM 41-132 is also very resistant to high temperatures, provides good functional reliability and ensures a long service life.

Application:

Klüberplex BEM 41-132 is suitable **for long-term and lifetime lubrication of rolling bearings** in a service temperature range* between approx. 70 to 150 °C, for example

for rolling bearings in

- paper machines (dry section)
- textile machines (drying installations)
- electric motors
- hot air fans
- drying kilns
- wind classifiers in the base materials industry
- generators in wind power stations

for rolling bearings in automotive components

- clutch bearings
- generator bearings
- water pump bearings
- visco fan bearings

Klüberplex BEM 41-132 meets the requirements established by the German Armed Forces' Office for Military Technology and Procurement (BWB) in TL 9150-0075, "Lubricating Grease, Rolling Bearings", NATO-Code: G 421.

Minimum shelf life:

The minimum shelf life is approx. 36 months if the product is stored in the original closed container in a dry place.

Pack sizes:

- 25 kg bucket
- 180 kg drum

Behaviour towards elastomers and plastics

The elastomers listed below were tested for compatibility with Klüberplex BEM 41-132 for a period of 168 h at 100 °C und 120 °C.

Klüberplex BEM 41-132

- Rolling bearing grease
- Resistant to temperatures up to 150 °C
- Good wear and corrosion protection
- High reliability, long service life

Material Time / Temperature	72 NBR 902 168 h / 100 °C	75 ACM 370 168 h / 140 °C	83 FKM 575 168 h / 150 °C	81 VMQ 542 168 h / 150 °C
Volume (%)	– 1	4	1	10
Hardness (Shore A)	3	– 4	– 1	– 13
Tensile strength (%)	10	– 12	– 48	– 44
Elongation at tear (%)	– 18	4	– 33	– 16

Prior to series application we recommend testing the compatibility of the lubricant and all materials in contact with the lubricant (our test results are based on random samples and do not release the user from conducting his own tests).

Product data:

Base oil/thickener	Synthetic hydrocarbon oil, mineral oil, special Li soap
Service temperature range*, °C	– 30 to 150
FAG-FE 9 test, DIN 51 821/2, F _a = 1500 N, n = 6000 rpm, 150 °C, L ₁₀ /L ₅₀ operating time, h	340 / 480
Flow pressure, DIN 51 805, at – 30 °C, mbar	< 1600
Low-temperature starting torque in acc. with IP 186/85 at – 30 °C, starting/running torque, N/mm	< 1000 / < 100
Base oil viscosity, DIN 51 561 at 40 °C, mm ² , approx.	120
at 100 °C, mm ² , approx.	14
Worked penetration, DIN ISO 2137, at 25 °C; 0.1 mm	265 to 295
Speed factor** for deep groove ball bearings (n x d _m), mm x min ⁻¹ , approx.	600 000
Apparent viscosity, Klüber viscosity grade***	M
Drop point, DIN ISO 2176, °C	> 220
Anticorrosion behaviour (Emcor test), DIN 51 802, 1 week, dist. water, rating	1
Density, DIN 51 757, at 20 °C, g/cm ³ , approx.	0.9
Colour	yellow

* 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 mechanical 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.

*** 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

Klüberplex® BEM 41-132

Safety Data Sheet

1.1 Product name: Klüberplex BEM 41-132 Code-No.: 020 256 31.05.2001	
1.2 Klüber Lubrication München KG Geisenhausenerstraße 7 D-81379 München Tel. ++49 - 89 78 76 - 0 telephone exchange Fax: ++49 - 89 78 76 - 333	Emergency telephone no.: ++49 - 89 7876 - 0
2. Composition / information on ingredients Chemical characterization (preparation): Mineral oil, synthetic hydrocarbon oil, special lithium soap	
3. Hazards identification No particular hazards known	
4. First aid measures 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	
5. Fire-fighting measures Suitable extinguishing media: Water spray, foam, dry powder, carbon dioxide (CO ₂) 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	
6. Accidental release measures 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	
7. Handling and storage 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: Store at room temperature in the original container Incompatible materials: Incompatible with oxidizing agents. Do not store together with food Further information on storage conditions: None	
8. Exposure controls / personal protection 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	

9. Physical and chemical properties Form: paste Colour: yellow Odour: characteristic Drop point: > 240 °C, DIN ISO 2176 Flash point: > 200 °C (base oil) Ignition temperature: not applicable Lower explosion limit: not applicable Upper explosion limit: not applicable Vapour pressure-first: not applicable Density: approx. 0.9 g/cm ³ , 20 °C Water solubility: insoluble pH value: not applicable Kinematic viscosity: not applicable Further information: none
10. Stability and reactivity Conditions to avoid: None Materials to avoid: Strong oxidizing agents Hazardous decomposition products: None under normal use Additional information: None
11. Toxicological information The toxicological data has been taken from products of similar composition Acute toxicity: LD ₅₀ /oral/rat = > 2 g/kg (literature data) Chronic toxicity: None Human experience: Prolonged skin contact may cause skin irritation and/or dermatitis
12. Ecological information 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
13. Advice on Disposal Code of waste: 120 112, Wastes from shaping and surface treatment of metals and plastics; wastes from shaping (including forging, welding, pressing, drawing, turning, cutting and filling); spent waxes and fats Disposal: Can be incinerated when in compliance with local, state and federal regulations. The code of waste has to correspond to the Council Directive 75/442/EEC and be specific as far as the related sector and process are concerned Dispose of contaminated packaging and recommended cleaning: Offer rinsed packaging material to local recycling facilities
14. Transport information GGVS / GGVE: not applicable ADN / ADN: not applicable IMDG-Code: not applicable ICAO / IATA-DGR: not applicable Further information: Not classified as dangerous in the meaning of transport regulations
15. Regulatory information 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
16. Other information Issue-department of Safety Data Sheet: Chemical Documentation, Tel.: ++49 - 89 7876 - 564

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