Klüber Noxlub KF 1920

High-temperature and long-term lubricating grease
for a wide service temperature range

Description

Klüber Noxlub KF 1920 is a fully synthetic long-term lubricating grease based on perfluorinated polyether, solid lubricants, and a soap-based thickening agent. Klüber Noxlub KF 1920 offers excellent high-temperature stability across an extremely wide service temperature range as well as providing good resistance to brake fluids, types DOT 3, 4, 5 and 5.1.

Application

Klüber Noxlub KF 1920 is especially recommended for long-term lubrication of rolling bearings and other applications in the automotive industry.
Klüber Noxlub KF 1920 has proven successful for lubrication of elastomer seals in hydraulic clutches as well as other high temperature engine components.

Compatibility with elastomers and plastics

Lubricating greases based on fluorinated polyether and PTFE are mostly neutral towards elastomers and plastics (except for perfluorinated rubber). Prior to series application, however, we recommend testing lubricant compatibility with the materials in question.

Application notes

Klüber Noxlub KF 1920 can be applied by spatula, brush or lubricant dispenser.

For optimum lubrication results we recommend cleaning the friction points with white spirit 180/210 and then with Klüberalfa XZ 3-1 prior to initial application. Thereafter the friction points should be blown with clean dry compressed air (or hot air) to remove all remaining white spirit residues.

All application points should be bright (i.e. free of oils, greases and perspiration) and completely free from all contaminants prior to initial lubrication.Please feel free to consult your local Kluber technical sales department to ensure optimum performance and therefore maximum service life is attained with this special product.

Minimum shelf life

The minimum shelf life is approx. 60 months if the product is stored in its closed original container in a dry place.

Klüber Noxlub KF 1920

- Wide service temperature range
- Neutral towards most plastics and elastomer materials
- Good damping properties
- Good wear and corrosion protection
- Free from sodium nitrite

Packing units

1 kg can
10 kg bucket

Product data:

Base	perfluorinated polyether, PTFE, sodium complex soap
Colour	white
Service temperature range*, °C	- 40 bis 260
Drop point, DIN ISO 2176**; °C	not measurable
Consistency, DIN 51 818; NLGI grade	2
Density at 20 °C, g/cm³, approx.	1,90
Base oil viscosity, DIN 51 562, pt. 1 at 40 °C, mm²/s approx. at 100 °C, mm²/s approx.	 190 34
Apparent dynamic viscosity, Klüber viscosity grade ***	 M
Flow pressure, DIN 51805, at –50 °C, mbar	< 1400
Low-temperature torque acc. to IP 186/85 at –40 °C starting torque, Nmm running torque, Nmm	 < 1000 <150
Corrosion protection, DIN 51802, Emcor test, 1 week, distilled water	 ≤ 1
Oil separation, based on FTMS 791 C321 after 24 h/100 °C, % by wt.	 <10

* 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.

** The drop point of this lubricating grease is not measurable according to DIN 2176 (non-melting); however, above 170 °C oil separation might occur.

*** 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

Klüber Noxlub KF 1920

Safety Data Sheet

1.1 Product name: Klüber Noxlub KF 1920
Code-No.: 090 080
05.09.2001

1.2 Klüber Lubrication München KG
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81379 München, Germany
☎ +49 89 7876-0 telephone exchange
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+49 89 7876-0

2. Composition / information on ingredients
Chemical characterization (preparation): Fluorinated polyether oil, PTFE, sodium complex 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: The product itself does not burn. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment
Special Hazards: In case of fire the following can be released: Traces of fluorinated products
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: 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. Keep away from tobacco products

9. Physical and chemical properties

Form	paste
Colour	white
Odour	none
Drop point	none, DIN ISO 2176
Flash point	none (base oil)
Ignition temperature	not applicable
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Vapour pressure-first	not applicable
Density	approx. 1.90 g/cm^3, 20 °C
Water solubility	dispersible
pH value	not applicable
Kinematic viscosity	not applicable
Further information	none

10. Stability and reactivity
Conditions to avoid: None
Materials to avoid: Strong basis, alkali metals, alkaline earth metals, Lewis acids
Hazardous decomposition products: > 260 °C traces of fluorinated products
Additional information: Some materials (e.g. titanium, aluminium or alloys of these materials) may cause lower decomposition temperatures

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): The product has not been tested
Behaviour in environmental compartments: Ecological injuries are not known or expected under normal use
Ecotoxic effects: The product has not been tested
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: 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. Can be incinerated when in compliance with local, state and federal regulations. Contains halogene
Dispose of contaminated packaging and recommended cleaning: Offer rinsed packaging material to local recycling facilities

14. Transport information

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

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, ☎ +49 89 7876-564

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