

Klüberalfa BF 83-102

Lubricating grease for high temperatures and speeds

Benefits for your application

- **Allows new applications in high-speed bearings lubricated with grease**
 - **due to better thermal stability than conventional high-speed greases**
 - **due to better speed characteristics than conventional PFPE/PTFE high-temperature greases**
 - **due to NSF-H1 registration *******
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Description

Klüberalfa lubricants based on perfluorinated polyether (PFPE) have been developed for specific applications where optimum performance under lifetime lubrication conditions is required.

Klüberalfa BF 83-102 has been designed to ensure long service life of rolling bearings subject to high speeds and very high permanent temperatures.

The calculated speed factor sets new standards in the formulation of high-temperature PFPE greases with PTFE thickeners.

Application

Klüberalfa BF 83-102 is suitable, e.g. for fan bearings in turbochargers, small turbines, generator bearings etc. Even at low temperatures the consistency of Klüberalfa BF 83-102 is low enough for use in low-torque drives.

Klüberalfa BF 83-102 is registered as NSF H1 and complies with FDA 21 CFR § 178.3570.

Compatibility with plastics and elastomers

Lubricating greases based on perfluorinated polyether oils (PFPE) are generally regarded as neutral towards standard elastomers and plastics and therefore allow the use of a wide range of different materials in construction (exception: fluorinated rubber). Nevertheless compatibility with the materials should be tested, especially prior to series application.

Application notes

For optimum lubrication results, we recommend cleaning the friction point with white spirit 180/210 and then with Klüberalfa XZ 3-1 prior to initial lubrication.

The friction point has to be bright (i.e. free of oil, grease and perspiration) and free of contamination particles.

To optimise service life, please contact our technical sales staff.

Minimum shelf life

The minimum shelf life is approx. 60 months if the product is stored in its unopened original container in a dry, frost-free place.

Pack size

1 kg can

Material Safety Data Sheets

Material safety data sheets can be downloaded or requested via our website www.klueber.com. You may also obtain them through your contact person at Klüber Lubrication.



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Lubricating grease for high temperatures and speeds

Product data	Klüberalfa® BF 83-102
Article number	090127
Chemical composition	perfluorinated polyether oil, PTFE
Service temperature range,* [°C], approx.	-50 to 200
Density at 20 °C, [g/cm ³], approx.	1.90
Consistency, DIN 51 818; NLGI grade	2
Apparent dynamic viscosity, Klüber viscosity grade ***	L/M
Drop point, DIN ISO 2176**; [°C]	not measurable
Base oil viscosity, DIN 51 562, at 40 °C, [mm ² /s], approx. at 100 °C, [mm ² /s], approx.	110 26
Corrosion protection of lubricating greases, DIN 51 802 (SKF-Emcor), duration of test: 1 week, distilled water	≤ 1
Flow pressure, DIN 51 805, at -50 °C [mbar]	< 1,400
Speed factor**** (n x d _m) [mm x min ⁻¹], approx.	1,000,000
NSF-H1 registration*****, registration No.	139418

* Service temperatures (not acc. to DIN 51825) 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.

** In accordance with DIN 2176 it is not possible to measure the drop point of these high-temperature greases (they do not melt); however, a certain degree of oil separation may occur at temperatures above approx. 170 °C.

*** 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

**** 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..

***** This lubricant is registered as H1, which means that it has been designed for incidental, technically unavoidable food contact. Experience shows that it can be used for equivalent applications in the cosmetic and pharmaceutical industry under the conditions described in the product information leaflet. Specific test results as e.g. biocompatibility, which could be an additional requirement for applications in the pharmaceutical industry, are not available for this product. Therefore, before using the lubricant adequate risk analyses should be performed and, if necessary, suitable measures be taken by the manufacturer and user of installations in order to exclude the risk of health hazards and personal injuries.

Lubrication is our world

With more than 2000 products available around the world, you can be sure that Klüber has the right product for your application. Please contact Klüber Lubrication specialists worldwide to assist you in all matters regarding lubrication.

www.klueber.com

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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.



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