

ISOFLEX TOPAS NB 52, NB 152

Synthetic rolling and plain bearing greases



Benefits for your application

- Longer component life when exposed to water or aqueous media due to special thickener
- Many years of successful use in the automotive and machine building industries

Description

ISOFLEX TOPAS NB 52 and ISOFLEX TOPAS NB 152 are rolling and plain bearing greases based on a synthetic hydrocarbon oil and a barium complex soap. The special barium-soap thickener used in the ISOFLEX TOPAS NB 52 and 152 greases offers good load-carrying capacity as well as resistance to water and ambient media unlike other soap-based thickeners. Both products show good protection against corrosion as well as oxidation and ageing stability. The Klüber barium complex soap is ELINCS-registered and approved by GASG (Global Automotive Stakeholders Group).

ISOFLEX TOPAS NB 152 can be used in a wide service temperature range from -40 °C to 150 °C. ISOFLEX TOPAS NB 52 is suitable for temperatures between -50 °C to 120 °C and short peak temperatures up to 150 °C depending on the application, e.g. enclosed gears, car seat adjustment mechanisms.

Application

ISOFLEX TOPAS NB 52 is a versatile grease for many applications, e.g.

- rolling and plain bearings subject to high speeds and loads, also for low temperatures,

- tooth flanks in precision gears, e.g. bevel gears in milling machines, electromechanical actuators for valves,
- electric contacts and components to reduce insertion forces.

In addition, ISOFLEX TOPAS NB 152 is compatible with many plastics.

ISOFLEX TOPAS NB 152 is primarily used for rolling and plain bearings, for example wheel bearings in racing cars, fan bearings, pump bearings. The grease is also suitable for plastic/plastic or steel/plastic friction points.

Application notes

The greases are applied by spatula, brush, grease gun or cartridge. Sprays should not be exposed to direct sunlight and temperatures above 50 °C.

Material safety data sheets

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

Pack sizes	ISOFLEX TOPAS NB 52	ISOFLEX TOPAS NB 152	ISOFLEX TOPAS NB 52 Spray
Aerosol can 400 ml	-	-	+
Can 1 kg	+	+	-
Cartridge 400 g	+	+	-
Bucket 25 kg	+	+	-

Note

Except for the article number and the minimum shelf life, the spray data below refer to the solvent-free spray agent.

ISOFLEX TOPAS NB 52, NB 152

Synthetic rolling and plain bearing greases

Product data	ISOFLEX TOPAS NB 52	ISOFLEX TOPAS NB 152	ISOFLEX TOPAS NB 52 Spray
Article number	004131	004145	081326
Chemical composition, thickener	barium complex soap	barium complex soap	barium complex soap
Chemical composition, type of oil	synthetic hydrocarbon oil	synthetic hydrocarbon oil	synthetic hydrocarbon oil
Lower service temperature	-50 °C / -58 °F	-40 °C / -40 °F	-50 °C / -58 °F
Upper service temperature	120 °C / 248 °F	150 °C / 302 °F	120 °C / 248 °F
Colour space	beige	beige	beige
Texture	homogeneous	homogeneous	homogeneous
Texture	short-fibred	fibrous	short-fibred
Density at 20 °C	approx. 0.96 g/cm ³	approx. 0.96 g/cm ³	approx. 0.96 g/cm ³
Worked penetration, DIN ISO 2137, 25 °C, lower limit value	265 x 0.1 mm	265 x 0.1 mm	265 x 0.1 mm
Worked penetration, DIN ISO 2137, 25 °C, upper limit value	295 x 0.1 mm	295 x 0.1 mm	295 x 0.1 mm
Kinematic viscosity of the base oil, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 40 °C	approx. 30 mm ² /s	approx. 100 mm ² /s	approx. 30 mm ² /s
Kinematic viscosity of the base oil, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 100 °C	approx. 5.9 mm ² /s	approx. 14.5 mm ² /s	approx. 5.9 mm ² /s
Shear viscosity at 25 °C, shear rate 300 s ⁻¹ , equipment: rotational viscometer, lower limit value	4 000 mPas	5 500 mPas	4 000 mPas
Shear viscosity at 25 °C, shear rate 300 s ⁻¹ , equipment: rotational viscometer, upper limit value	8 000 mPas	9 500 mPas	8 000 mPas
Corrosion inhibiting properties of lubricating greases, DIN 51802, (SKF-EMCOR), test duration: 1 week, distilled water	0 corrosion degree	0 corrosion degree	0 corrosion degree
Copper corrosion, DIN 51811, (lubricating grease), 24h/100 °C	1 - 100 corrosion degree		1 - 100 corrosion degree
Copper corrosion, DIN 51811, (lubricating grease), 24h/120 °C		1 - 120 corrosion degree	
Oil separation, ASTM D 6184 [FTMS 791 C 321], after 30 h/100 °C	<= 3 % by weight	<= 2 % by weight	<= 3 % by weight
Drop point, DIN ISO 2176, IP 396	>= 240 °C	>= 240 °C	>= 240 °C
Oxidation stability of lubricating greases, ASTM D942, 100 h/99 °C, pressure drop	<= 0.3 bar	<= 0.1 bar	<= 0.3 bar
Speed factor (n x dm)	approx. 1 000 000 mm/min	approx. 600 000 mm/min	approx. 1 000 000 mm/min
Water resistance, DIN 51807 pt. 01, 3 h/90 °C, rating	<= 1 - 90	0 - 90	<= 1 - 90
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	36 months	36 months	24 months





ISOFLEX TOPAS NB 52, NB 152

Synthetic rolling and plain bearing greases



Klüber Lubrication – your global specialist

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.

**Klüber Lubrication München SE & Co. KG /
Geisenhausenerstraße 7 / 81379 München / Germany /
phone +49 89 7876-0 / fax +49 89 7876-333.**

The data in this document is based on our general experience and knowledge at the time of publication 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 field tests with the product selected for a specific application. All data are guide values which depend on the lubricant's composition, the intended use and the application method. The technical values of lubricants change depending on the mechanical, dynamical, chemical and thermal loads, time and pressure. These changes may affect the function of a component. We recommend contacting us to discuss your specific application. If possible we will be pleased to provide a sample for testing on request. Klüber products are continually improved. Therefore, Klüber Lubrication reserves the right to change all the technical data in this document at any time without notice.

Publisher and Copyright: Klüber Lubrication München SE & Co. KG. Reprints, total or in part, are permitted only prior consultation with Klüber Lubrication München SE & Co. KG and if source is indicated and voucher copy is forwarded.