

# OPTAPLUS AO 35, 140

Adhesive dampening greases of high apparent dynamic viscosity



## Benefits for your application

- Dampening effect
- Good adhesion
- Improves haptics
- Contains anticorrosion additive for nonferrous metals

## Description

OPTAPLUS AO greases are adhesive dampening greases based on synthetic hydrocarbon oils. They contain silicate as thickener.

## Application

OPTAPLUS greases are used for friction points requiring high mechanical dampening and good adhesion, e.g. small gears, threaded spindles, eyepieces and binoculars. These greases are available in two apparent dynamic viscosity grades in order to meet dampening and adhesion requirements.

## Application notes

OPTAPLUS greases can be applied by brush, spatula, grease gun, automatic metering systems for small quantities, grease cartridge and the usual metering systems. Owing to the many different elastomer and plastic compositions their compatibility has to be checked prior to series application.

## Material safety data sheets

Material safety data sheets can be requested via our website [www.klueber.com](http://www.klueber.com). You may also obtain them through your contact person at Klüber Lubrication.

Pack sizes	OPTAPLUS AO 35	OPTAPLUS AO 140
Can 1 kg	+	+

Product data	OPTAPLUS AO 35	OPTAPLUS AO 140
Article number	014017	014016
Chemical composition, type of oil	synthetic hydrocarbon oil	synthetic hydrocarbon oil
Chemical composition, type of oil	ester oil	
Chemical composition, thickener	silicate	silicate
Lower service temperature	-10 °C / 14 °F	-10 °C / 14 °F
Upper service temperature	100 °C / 212 °F	100 °C / 212 °F
Colour space	white	white
Appearance	almost transparent	almost transparent
Texture	long-fibred	long-fibred
Texture	homogeneous	homogeneous
Density at 20 °C	approx. 1.00 g/cm <sup>3</sup>	approx. 1.00 g/cm <sup>3</sup>
Worked penetration, DIN ISO 2137, 25 °C, lower limit value	210 x 0.1 mm	160 x 0.1 mm
Worked penetration, DIN ISO 2137, 25 °C, upper limit value	310 x 0.1 mm	200 x 0.1 mm



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Adhesive dampening greases of high apparent dynamic viscosity

Product data	OPTAPLUS AO 35	OPTAPLUS AO 140
Shear viscosity at 25 °C, shear rate 300 s <sup>-1</sup> , equipment: rotational viscometer, lower limit value	28 000 mPas	160 000 mPas
Shear viscosity at 25°C, shear rate 300 s <sup>-1</sup> , equipment:rotational viscometer, upper limit value	46 000 mPas	230 000 mPas
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

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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.

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