

# Klüberplus S 02-004

Water-miscible sliding dispersion for windscreen wipers made of synthetic or natural rubber and other elastomer components



# Benefits for your application

- Prevents stick-slip
- Reduces friction
- Environmentally sound
- Improves the wiping pattern
- Easy assembly
- Easy application

## Description

Windscreen wiper blades are subject to extreme and sometimes conflicting requirements. On the one hand wiper blades have to be structurally stable enough to resist mechanical stress during operation, on the other hand they have to have sufficient flexibility to ensure a satisfactory wiping pattern is achieved in contact with the windscreen. Optimum frictional behavior, especially in the dry/wet friction regime, is therefore of vital importance. Klüberplus S 02-004 has been designed especially for optimization of the frictional behavior of wiper blades. A secondary benefit of the lubricant is that assembly of the wiper blades is also much easier. This also applies to the assembly of other components, such as O-rings etc.. Once applied, Klüberplus S 02-004 forms a dry, flexible, sliding film which ensures prevention of stick slip sliding with minimal lubricant transfer to the mating surface, e.g. the windscreen. Klüberplus S02-004 is an environmentally sound and easy-to- apply product offering good sliding performance.

# Application

- Windscreen wiper blades
- O rings
- Elastomer components of all kinds

# Application notes

Prior to removing some of the container content, stir product well until bottom is free from deposits. The product then has to be filtered, e.g. using a nylon filter with a mesh size of 150  $\mu$ m.

The product can be applied by spraying, slot die coating, immersion or by brush.

#### Spraying

Feed pressure: approx. 2 bar Nozzle diameter: approx. 0.8 mm

Ensure that oil and water-free compressed air is used. During online application, the lubricant dispersion can be applied to either warm or hot wiper blades at temperatures to 150 °C. Thereafter the lubricant film can dry, cure and harden at room temperature or at higher temperatures. Should above average adhesion be required, we recommend plasma pretreatment of the rubber components prior to application of the dispersion. The recommended layer thickness of Klüberplus S 02-004 is approx. 5-10  $\mu m$ .

NOTE: Please protect product against frost. If the product is frozen, let it thaw at room temperature.

### 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	Klüberplus S 02-004
Can 1 I	+
Bucket 15 I	+

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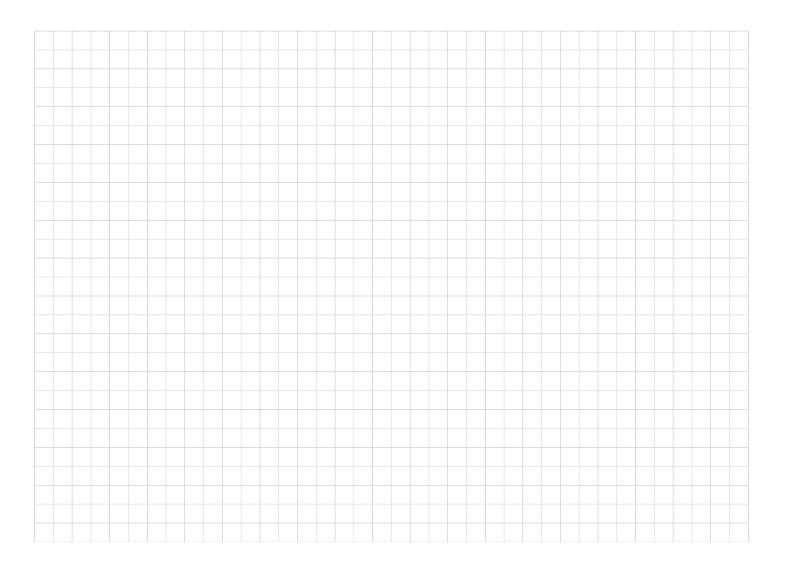
Product data	Klüberplus S 02-004
Article number	099042
Lower service temperature	-40 °C / -40 °F
Upper service temperature	100 °C / 212 °F
Density, DIN 51757, 20 °C	approx. 1.1 g/cm³
Colour space	black
Runout time, DIN EN ISO 2431, with flow cups, nozzle 4 mm	approx. 22.5 s
Determination of pH value, DIN 51369, electrometrically, undiluted	approx. 8
Yield with a tribo-film thickness of 10 micrometer	approx. 12 m²/l
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	6 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.

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