

Klüberflex 300-0 N

One-component bonded coating free from co-solvent for sealing rings



Benefits for your application

- Easy and clean assembly of O-ring seals
- Easy separation of rings during automatic feeding due to anti-stick surface
- Quick check of coating quality after application due to integrated UV indicator (excitation at 300-400 nm)
- Cost savings during processing
- Easy and uncomplicated processing
- Ready to use! No dilution or mixing of several components.
- High flexibility helps to meet your individual customer requirements
- Individualised product adjustment with additional product modules

Description

The product name Klüberflex designates a modular product concept offering a range of individualized solutions, from the simple base product to a complex bonded coating system incorporating a variety of features.

Klüberflex 300-0 N is the water-miscible, heat-hardening base product for high requirements on sealing systems.

This bonded coating combines, when hardened, a soft and pleasant surface finish with high resistance to wear and chemical agents.

Application

Klüberflex 300-0 N has been designed to improve the assembly of statically loaded sealing rings made of EPDM, FKM, AEM or ACM.

Owing to the good wear resistance it can also be used for dynamically loaded components, depending on the type and duration of loads.

Typical applications include:

- O-ring seals
- radial shaft seals, etc.

Application notes

After stirring, the product has to be filtered, e.g. using a nylon filter with a mesh size of 125- 150 µm. Klüberflex 300-0 N is ready for use. No dilution required when processing it in drum spray devices. The preferred application method is spraying, however immersion or brushing are possible as well.

Recommended spraying parameters:

Spray gun: compressed air or HVLP

Nozzle diameter: 0.5 – 0.8 mm, Feed pressure: 2 - 4 bar.

Additional application notes

Spraying

When applying the product by spray system, we recommend installing an agitator in the storage container to prevent solid particles from settling. The storage container should be closed with a lid.

The spraying equipment and storage container can be cleaned with tap water. Ensure that only oil- and water-free compressed air is used. Open packs should be closed again immediately after use.

Special notes for converting a system from solvent-containing to water-miscible bonded coatings:

Flammable coatings, adhesives, etc. usually contain organic solvents and binding agents which are not water-miscible. In case of short-term conversions (e.g. for testing purposes) it is indispensable to use a HYBRID SOLVENT as an INTERMEDIATE CLEANING AGENT. It is important for the solvent to be compatible with the solvent-containing coating and the water-miscible coating.

Use for example acetone or isopropanol as INTERMEDIATE CLEANING AGENT.

Before using the intermediate cleaning agent, make sure it is compatible with the solvent-containing coating.

Steps of conversion to a water-miscible coating:

1. Clean the equipment with a solvent/cleaner which is compatible with the flammable coating
2. Use an intermediate cleaner (as described before)
3. Secondary cleaning with water
4. Apply the water-miscible coating

For a permanent conversion to water-miscible coatings we recommend replacing all hoses, control valves and feed lines.

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Important: Protect against frost. Once frozen, the product must not be processed. In case of doubt, please contact Klüber Lubrication München SE & CO. KG.

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	Klüberflex 300-0 N
Can 1 l	+
Bucket 15 l	+

Product data	Klüberflex 300-0 N
Article number	099218
Colour space	black
Density, DIN EN ISO 2811, at 20 °C	approx. 1.01 g/cm ³
Heat-setting at an object temperature of 120°C	45 min
Runout time, DIN EN ISO 2431, with flow cups, 4 mm nozzle	approx. 35 s
Drying time, at approx. 100 °C, dry to the touch	5 min
Yield with a tribo-film thickness of 5 micrometer	approx. 20 m ² /l
Cross-cut adhesion (EPDM), PA-063 based on DIN EN ISO 2409, value	0 Gt
Friction coefficient (μ), DIN 53375, EPDM- plate, Shore 65, compact rubber, static	approx. 0.44
Friction coefficient (μ), DIN 53375, EPDM- plate, Shore 65, compact rubber,dynamic	approx. 0.3
Wear resistance on glass, test path 100 mm, testing speed 100 mm/s, frequency 60 strokes/min, load 2 kg, material compact rubber; cycles	approx. 10 000 cycles
Wear resistance to textile fabric, test path: 100 mm, testing speed: 100 mm/s, frequency: 60 strokes/min, layer thickness: approx.10 μm, load 1 kg, material: compact rubber; cycles	approx. 10 000 cycles
Adhesion in a humid atmosphere, DIN EN ISO 6270-2, 240 h, no removal of the bonded coating	0 Gt
Flexibility of coating after exposure to thermal stress, 96 h at -40 °C, after 100 % elongation	no crack formation
Flexibility of coating after exposure to thermal stress, 96 h at 100 °C, after 100 % elongation	no crack formation
Chemical resistance to FAM test fuel, abrasion obtained with impregnated scouring cloth acc. to PV VW 50129, 50 cycles	no crack formation
Chemical resistance to ethanol/water (50/50), abrasion obtained with impregnated scouring cloth acc. to PV VW 50129, 50 cycles	no crack formation
Chemical resistance to ethanol/water (1:1), duration of exposure 1 h	resistant
Chemical resistance to isopropanol, abrasion obtained with impregnated scouring cloth acc. to PV VW 50129, 50 cycles	no crack formation
Chemical resistance to window cleaner (commercial product), duration of exposure 1 h	resistant
Chemical resistance to window cleaner, abrasion obtained with impregnated scouring cloth acc. to PV VW 50129, 50 cycles	no crack formation
Flexibility of coating at ambient temperature, 150 % elongation	no crack formation
Steam jet test according PV VW 50129, Kärcher test	passed



Product data	Klüberflex 300-0 N
"Low-temperature stability [Mandrel bending test acc. to DIN EN ISO 1519 at the indicated temperature]"	-40 °C
"High-temperature stability [Flexibility (tensile strength acc. to DIN 53504) and adhesion of coating (cross cut acc. to DIN EN ISO 2409) after storage at the indicated temperature]"	180 °C
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	9 months



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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.

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