

Klüberflex 100-0 N

Single-component silicone hybrid bonded coating free of co-solvent for sponge rubber profiled seals



Benefits for your application

- **Better surface finish of profiled seals**
 - pleasant to the touch thanks to soft-feel effect
- **Prevention of wear marks on body paint**
 - thanks to low surface roughness of bonded coating
- **Less costs and time needed to prepare application because**
 - no mixing of components necessary
 - no cooling required during extrusion prior to application
- **High flexibility helps meet your individual customer requirements**
 - Individualised product adjustment with additional product modules
- **Quality inspection with integrated UV indicator (excitation at 300 - 400 nm)**

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 100-0 N is the water-miscible, heat-hardening base product for high requirements regarding the touch feel of seals. Thanks to an innovative substrate, this bonded coating combines, when hardened, a soft and pleasant surface finish with high resistance to wear.

The particularly smooth surface of this bonded coating prevents wear marks on the car body paint as tend to occur with conventional coatings.

Application

Klüberflex 100-0 N was developed to improve the characteristics of EPDM sponge rubber and minimize wear on this material, but can also be used on compact seals.

Typical applications include:

- car door seals
- car body seals
- car boot seals

Application notes

After stirring, Klüberflex 100-0 N has to be filtered, e.g. using a nylon filter with a mesh size of 125 - 150 µm. We recommend integration of the coating process into the seal production line

as in this way the vulcanisation temperature can be used for the coating hardening, which eliminates the need for additional processes and helps to save costs.

Application parameters

The preferred application method for Klüberflex 100-0 N is spraying, however immersion or brushing are possible as well.

Recommended spraying parameters:

Spray gun: compressed air HVLP

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

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.

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

Steps of conversion to a water-miscible coating:

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

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

Note

Important note: Protect against frost. Once frozen, the product must not be processed. In case of doubt, please contact Klüber Lubrication.

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 100-0 N
Can 1 l	+
Bucket 15 l	+

Product data	Klüberflex 100-0 N
Article number	099216
Colour space	black
Density, DIN EN ISO 2811, at 20 °C	approx. 1.01 g/cm ³
Heat-setting at an object temperature of 150°C	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
Runout time, DIN EN ISO 2431, with flow cups, 4 mm nozzle	approx. 35 s
Flexibility of coating at ambient temperature, 150 % elongation	no crack formation
Friction coefficient (μ), DIN 53375, EPDM- plate, Shore 65, compact rubber,dynamic	approx. 0.3
Friction coefficient (μ), DIN 53375, EPDM- plate, Shore 65, compact rubber, static	approx. 0.44
Wear resistance to textile fabric, test path: 100 mm, testing speed: 100 mm/s, frequency: 60 strokes/min, layer thickness: approx.10 μ m, 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
Chemical resistance to ethanol/water (1:1), duration of exposure 1 h	resistant
Chemical resistance to window cleaner (commercial product), duration of exposure 1 h	resistant
"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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