UNISILKON L 641

Special grease for drinking water, beverage and heating valves

Your benefits at a glance

- Excellent wetting power
- Operational smoothness due to a good viscosity-temperature behaviour
- Very good resistance to water and water vapour
- High thermal stability
- Good sealing effect
- Neutral towards metals, many elastomers and plastics
- NSF H1 registered
- Tested acc. to BWGL-KTW (UBA guideline), WRAS, ACS and NSF/ANSI/CAN 61 as well as DIN-DVGW-type examination certificate acc. to DIN EN 377 class E (…160 °C) as lubricant for application in equipment and actuators for fuel gases

Your requirements - our solution

UNISILKON L 641 is a special lubricating grease based on silicone oil and PTFE for valves and other elements in the heating, beverage and sanitary sector. UNISILKON L 641 offers good penetration ability in small lubrication gaps and lube points of difficult access. As its viscosity is rather independent from service temperatures, UNISILKON L 641 allows constant actuating forces within the whole cold/hot water range of single-lever mixer taps. Due to its chemical composition, UNISILKON L 641 has shown to be resistant to various substances in the food-processing and beverage industries like beer, milk, juices, liquors, acid and alkaline disinfectants. UNISILKON L 641 is not compatible with most organic solvents as well as strong acid and alkaline solutions.

UNISILKON L 641 is NSF H1 registered and therefore complies with FDA 21 CFR § 178.3570. The lubricant was developed for incidental contact with products and packaging materials in the food-processing, cosmetics, pharmaceutical or animal feed industries. The use of UNISILKON L 641 can contribute to increase reliability of your production processes. We nevertheless recommend conducting an additional risk analysis, e.g. HACCP.

Application

UNISILKON L 641 is used as sealing and assembly aid for seals and packings in contact with water or water vapour, e.g.:

domestic installations - ball valves

single-lever mixers – piston cartouches, ceramic discs

mixer taps with two handles – swivel spouts, shower switches, shower heads

thermostatic mixer taps – thermo regulators and elements

heating – thermostatic valves, tap cocks, pressfit seals

water hydraulics – sealing grease for radial shaft seals.

Application notes

UNISILKON L 641 is neutral towards most metals, thermoplastics and elastomers. Owing to the many different elastomer and plastic compositions their compatibility should be checked prior to series applications. UNISILKON L 641 can be applied by means of spatula, brush, usual metering devices or the tampon printing method. Please observe the material safety data sheet.

For more details on MOSH/MOAH and their assessment in H1 lubricants, please visit our website or contact your Klüber representative.

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.

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Pack sizes	UNISILKON L 641
Cartrigde 500 g	+
Can 500 g	+
Bucket 30 kg	+
Drum 180 kg	+

Characteristics	UNISILKON L 641
Article number	022121
Composition, solid lubricant	PTFE
Composition, type of oil	methyl silicone oil
Colour space	white
Texture	homogeneous , long fibrous
Service temperature, lower limit	-40 °C
Service temperature, upper limit	160 °C
NSF H1 registration number	056400
Density, Klüber method: PN 024, 20°C	approx. 1.18 g/cm³
Worked penetration, DIN ISO 2137 / ASTM D217, 25°C, lower limit	300 0.1 mm
Worked penetration, DIN ISO 2137 / ASTM D217, 25°C, upper limit	320 0.1 mm
Shear viscosity, Klüber method: PN 008@DIN 53019-1, equipment: rotational viscometer, 25°C, 50 s^{-1}, lower limit	approx. 135000 mPas
Shear viscosity, Klüber method: PN 008@DIN 53019-1, equipment: rotational viscometer, 25°C, 50 s^{-1}, upper limit	approx. 205000 mPas
Dropping point, DIN ISO 22286 / IP 396	≥ 230 °C
Water resistance, DIN 51807-1, 3 h, 90°C	≤ 1 - 90 rating
Mineral Oils associated with, MOAH (Mineral Oil Aromatic Hydrocarbons), (Information based on recipe. The presence of impurities, cannot be ruled out.)	No component of recipe
Mineral Oils associated with, MOSH (Mineral Oil Saturated Hydrocarbons), (Information based on recipe. The presence of impurities, cannot be ruled out.)	No component of recipe
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	36 months

a brand of FREUDENBERG

Product information

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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 95 years.

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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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