

# UNISILKON LCA 3801

Special lubricating grease for drinking water valves and non-metallic material combinations



## Benefits for your application

- For all types of material combinations like ceramics/ceramics, metal/plastic or elastomers
- With load-bearing areas between 50 and 99.9 %, good wetting behaviour and good adhesion to different material surfaces, the product ensures consistent smooth operation over the entire lifetime of the component
- Operating torque nearly constant under changing temperatures, enabling constant smooth operation up to an admissible surface pressure of approx. 4 N/mm<sup>2</sup>
- Very good resistance to both cold and hot water
- Good thermal stability even when applied in a thin film ensures a long functional lifetime of ceramic disc cartridges
- Good sealing effect and backflow from "lubricant depot"
- Compatible with most ceramics, metals, elastomers and plastics
- Approved acc. to DGW-KTW (UBA guideline), NSF 61, ACS (further approvals on request) for use in all friction points exposed to water or in permanent contact with drinking water

## Description

UNISILKON LCA 3801 is a special lubricating grease neutral in odour and taste and based on silicone oil and a calcium soap. It has been developed primarily for valves and fittings as well as sanitary applications. UNISILKON LCA 3801 provides effective wetting even in narrow lubricating gaps and friction points that are difficult to reach.

Uniform operational smoothness is achieved with cold or hot water as the viscosity is not strongly influenced by changing temperatures, e.g. in single-lever mixers with specific surface pressures up to approx. 4 N/mm<sup>2</sup>, depending on the design of ceramic cartridges.

UNISILKON LCA 3801 is resistant to many media used in the beverage industry and to acid or alkaline disinfectants but not resistant to most organic solvents and strong acids or lyes.

## Application

UNISILKON LCA 3801 is used in the entire sanitary field for the lubrication of all kinds of ceramic disc cartridges (surface pressure  $\geq$  0.4 to 4 N/mm<sup>2</sup>), ceramic head parts, mixing taps, piston and ball mixers. It can also be used as a sealing grease

and assembly aid for valves and fittings in domestic and heating installations with exposure to cold and hot water or water vapour.

## Application notes

UNISILKON LCA 3801 is neutral towards ceramics, metals, thermoplastics (e.g. ABS, PC) as well as elastomers (e.g. NBR, EPDM, VMQ). Owing to the many different compositions of elastomers and plastics, we recommend checking their compatibility prior to series application.

UNISILKON LCA 3801 can be easily applied by brush, spatula, sponge or by means of special Apply&Lube technology, e.g. tampon printing.

In this context, please also refer to our Safety Data Sheet.

## 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	UNISILKON LCA 3801
Can 1 kg	+
Bucket 25 kg	+



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Product data	UNISILKON LCA 3801
Article number	022100
Chemical composition, type of oil	silicone oil
Chemical composition, thickener	calcium soap
Lower service temperature	-40 °C / -40 °F
Upper service temperature	140 °C / 284 °F
Colour space	beige
Texture	fibrous
Texture	homogeneous
Density at 20 °C	approx. 0.97 g/cm <sup>3</sup>
Worked penetration, DIN ISO 2137, 25 °C, lower limit value	295 x 0.1 mm
Worked penetration, DIN ISO 2137, 25 °C, upper limit value	325 x 0.1 mm
Shear viscosity at 25 °C, shear rate 300 s <sup>-1</sup> , equipment: rotational viscometer, lower limit value	12 000 mPas
Shear viscosity at 25 °C, shear rate 300 s <sup>-1</sup> , equipment: rotational viscometer, upper limit value	20 000 mPas
Kinematic viscosity of the base oil, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 25 °C	approx. 5 000 mm <sup>2</sup> /s
Copper corrosion, DIN 51811, lubricating grease, 5h/100 °C	1 - 100 corrosion degree
Water resistance, DIN 51807 pt. 01, 3 h/90 °C, rating	0 - 90
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	36 months

## 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.

**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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