

Klüberpaste UH1 96-402 Spray

Light-coloured high-temperature paste for the food-processing and pharmaceutical industries



Your benefits at a glance

- **Reliable dry lubrication at temperatures from 200 °C to 1200 °C**
- **Good adhesion to the friction point, also when subject to humidity**

Your requirements - our solution

Klüberpaste UH1 96-402 Spray is a high-temperature paste designed for versatile assembly purposes in hygienically sensitive environments. It contains fully synthetic base oils and a special blend of ceramic solid lubricants. Across the “normal” temperature range up to approx. 160 °C, Klüberpaste UH1 96-402 Spray is a water-resistant lubricating and assembly paste providing good adhesion on metals. Under permanently high temperatures up to 1200 °C, its solid lubricating particles remain in the friction contact and protect e.g. fits against tribocorrosion or fretting corrosion.

Klüberpaste UH1 96-402 Spray is NSF H1 registered and therefore in compliance 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 Klüberpaste UH1 96-402 Spray can contribute to increase reliability of your production processes. Nevertheless it is recommended to conduct an additional risk analysis, e.g. HACCP.

Application

Klüberpaste UH1 96-402 Spray is suitable for a variety of friction points in food-processing and pharmaceutical machines which are subject to high loads

- as an assembly paste for transition and loose fits to prevent fretting corrosion
- as a paste for screw connections based on high-alloy steels to optimise the tightening torque and demounting, even after long operating periods

- as a long-term lubricant for low-speed guide rails, hinges, rollers, etc.

The friction values indicated in the Product data section were measured with two different materials. Other materials have to be checked accordingly.

Application notes

Shake well before use. Ensure sufficient ventilation during spraying as explosive mixtures may form.

Do not spray against naked flame or onto hot or incandescent objects.

Do not use spray in confined areas, e.g. control cabinets.

Observe additional instructions for use in material safety data sheet and on can label.

Before applying Klüberpaste UH1 96-402 Spray, all lubrication points should be thoroughly cleaned using e.g. Klüberfood NK1 Z 8-001 Spray, to ensure maximum hygiene conditions exist, mandatory for food-safe H1 lubrication.

Protect product against direct sunlight and temperatures above 50 °C.

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

Aerosol can 400 ml

**Klüberpaste UH1 96-402
Spray**

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Product data	Klüberpaste UH1 96-402 Spray
Article number	081254
NSF-H1 registration	144 396
NLGI grade, DIN 51818	2
Lower service temperature	-30 °C / -22 °F
Upper service temperature	1200 °C / 2192 °F
Colour	
Kinematic viscosity of the base oil, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 40 °C	approx. 360 mm ² /s
Kinematic viscosity of the base oil, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 100 °C	approx. 57 mm ² /s
Corrosion inhibiting properties of lubricating greases, DIN 51802, (SKF-EMCOR), test duration: 1 week, distilled water	<= 1 corrosion degree
Friction coefficients screw test, screw M 10x30-8.8, DIN EN ISO 4017, black and nut M 10-8, DIN EN ISO 4032, polished, averaged thread friction coefficient (first-time tightening)	approx. 0.11
Friction coefficient screw test, measured with hexagon bolts M10x30-8.8, DIN EN ISO 4017, tightening speed n = 5 rpm, number of screws = 20, nut M10-8, plain and degreased, face material 42CrMo4 with roughness Ra 1.6, tightening torque MA = 50 Nm, averaged bearing surface friction coefficient (initial tightening)	approx. 0.13
Friction coefficient screw test, Measured with hexagon bolts M10x30-8.8, DIN EN ISO 4017, tightening speed n = 5 rpm, number of screws = 20, nut M10-8, plain and degreased, face material 42CrMo4 with roughness Ra 1.6, tightening torque MA = 50 Nm, standard deviation (S) of averaged thread friction coefficient (initial tightening)	approx. 0.009
Friction coefficient screw test, measured with hexagon bolts M10x30-8.8, DIN EN ISO 4017, tightening speed n = 5 rpm, number of screws = 20, nut M10-8, plain and degreased, face material 42CrMo4 with roughness Ra 1.6, tightening torque MA = 50 Nm, standard deviation (S) of averaged bearing surface friction coefficient (initial tightening)	approx. + 0.018
Friction coefficient screw test, measured with hexagon bolts M10x50-A2-70, DIN EN ISO 4017, tightening speed n = 5 rpm, number of screws = 20, material of the nut A2, face material 42CrMo4 with roughness Ra 1.6, tightening torque MA = 40 Nm, averaged thread friction coefficient (initial tightening)	approx. 0.11
Friction coefficient screw test, measured with hexagon bolts M10x50-A2-70, DIN EN ISO 4017, tightening speed n = 5 rpm, number of screws = 20, material of the nut A2, face material 42CrMo4 with roughness Ra 1.6, tightening torque MA = 40 Nm, averaged bearing surface friction coefficient (initial tightening)	approx. 0.12
Friction coefficient screw test, measured with hexagon bolts M10x50-A2-70, DIN EN ISO 4017, tightening speed n = 5 rpm, number of screws = 20, material of the nut A2, face material 42CrMo4 with roughness Ra 1.6, tightening torque MA = 40 Nm, standard deviation (S) of averaged bearing surface friction coefficient (initial tightening)	approx. 0.01
Friction coefficient screw test, measured with hexagon bolts M10x50-A2-70, DIN EN ISO 4017, tightening speed n = 5 rpm, number of screws = 20, material of the nut A2, face material 42CrMo4 with roughness Ra 1.6, tightening torque MA = 40 Nm, standard deviation (S) of averaged thread friction coefficient (initial tightening)	approx. 0.019
Four-ball tester, welding load, DIN 51350 pt. 04	>= 2 500 N
Water resistance, DIN 51807 pt. 01, 3 h/90 °C, rating	approx. 1 - 90
Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx.	24 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.

**Klüber Lubrication München SE & Co. KG /
Geisenhausenerstraße 7 / 81379 München / Germany /
phone +49 89 7876-0 / fax +49 89 7876-333.**

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