



MOLYKOTE® P-3300 Paste

Preliminary data

Anti-seize paste for assembly and threaded connections

Features

- High load-carrying capacity
- Wide service temperature range
- Good water resistance
- Good corrosion inhibition properties
- Constant and defined friction on threaded connections
- No intentional calcium ingredients
- No intentional polytetrafluoroethylene (PTFE) or per- and polyfluoroalkyl substances (PFAS)

Composition

- Mineral oil
- Solid lubricants
- Thickener
- Corrosion inhibitor

Applications

Suitable for lubrication of threaded connections up to service temperatures of 540°C. Paste has been developed for friction control on a constant level, targeting friction class B of VDI 2230. Paste guarantees safe operation at elevated temperatures due to no intentional added calcium compounds, which are known to promote formation of hexavalent chromium compounds at high temperatures.

How to use

Clean points of contact. In case of visible oil separation, stir up product before use. Apply in same way as lubricating greases, using brush, spatula or grease-gun. Suitable for delivery by central lubricating system.

Do not mix with other lubricants, as this may have adverse effects on consistency and performance.

Handling precautions

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION.

Typical properties

Specification writers: These values are not intended for use in preparing specifications. Please contact your local MOLYKOTE® sales representative prior to writing specifications on this product.

| Standard ⁽¹⁾ | Test | Unit | Result |
|-------------------------|-------|------|--------|
| | Color | | White |

Consistency, density, viscosity

| | | | |
|----------|----------------------|-------|-----------|
| ISO 2137 | Unworked penetration | mm/10 | 280 - 320 |
| ISO 2811 | Density at 20°C | g/ml | 1.54 |

Temperature

| | | | |
|------------|--|------|-------------|
| | Service temperature range | °C | -30 to +540 |
| | Stability of solid lubricant | °C | +1350 |
| DIN 51 805 | Kesternich method - flow pressure at -30°C | mbar | < 1400 |

Loading capacity, protection against wear, service life

| Four-ball tester | | | |
|------------------|----------------------------|----|--------|
| DIN 51 350 T.4 | Weld load | N | ≥ 3000 |
| DIN 51 350 T.5 | Wear scar under 800 N load | mm | 1.5 |

Threaded Connections

| | | | |
|----------|--|--|-------------|
| Internal | Bolted connection test: Schatz Tester | | |
| | M12 x 1.75 mm, 8.8, blackened surface | | |
| | μ thread avg. (min.) | | 0.12 (0.10) |
| | μ head avg. (min.) | | 0.11 (0.10) |
| | k-factor avg. | | 0.16 |
| | M12 x 1.75 mm, A2-70, 1.4301, blank | | |
| | μ thread avg. (min.) | | 0.13 (0.11) |
| | μ head avg. (min.) | | 0.11 (0.10) |
| | k-factor avg. | | 0.16 |
| | M12 x 1.75 mm, 1.7709, blank | | |
| | μ thread avg. (min.) | | 0.11 (0.10) |
| | μ head avg. (min.) | | 0.12 (0.11) |
| | k-factor avg. | | 0.16 |

⁽¹⁾ISO: International Standardization Organization. DIN: Deutsche Industrie Norm.

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Typical properties (continued)

| Standard ⁽¹⁾ | Test | Unit | Result |
|--|--|------|--------|
| Threaded Connections | | | |
| Internal | Initial breakaway torque after 540°C / 21 h on 1.7709, M12, blank (start torque = 56 Nm) | Nm | ~125 |
| Corrosion protection & Water Resistance | | | |
| DIN 51 807 T.1 | Water resistance, static evaluation step | | 0-90 |
| ASTM D 130 | Copper Corrosion, 24h / 100°C | | 1a |
| DIN 51 802 | SKF-Emcor method – distilled Water Degree of corrosion | | ≤ 2 |

⁽¹⁾ISO: International Standardization Organization. DIN: Deutsche Industrie Norm. ASTM: American Society for Testing and Materials.

Usable life and storage

When stored between 0°C and 40°C in the original unopened containers, this product has a usable life of 36 months from the date of production.

Packaging

This product is available in different standard container sizes as shown on molykote.com. Detailed container size information should be obtained from your nearest MOLYKOTE® sales office or MOLYKOTE® distributor.

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