

MP-50™

MOLY PASTE

DESCRIPTION

MP-50™ Moly Paste is a non-melting, lubricating compound containing a high percentage of low-friction molybdenum disulfide (MoS₂). Being a thick paste, it can be applied by brush or spatula. MP-50 has an application range of -300°F (-185°C) to 750°F (400°C). When employed in mechanical components not exposed to air, good lubrication results can be anticipated up to 2000°F (1090°C). Molybdenum Disulfide is nearly inert in operating conditions up to 600°F (315°C). If the grease vehicle should be squeezed out, disrupting normal lubrication, the moly disulfide remains to protect working surfaces. It assists in boundary lubrication by filling microscopic voids. MP-50 "plates" metal surfaces, reducing high points and increasing the load carrying area. It provides a low-friction shield to reduce bearing temperatures, protect working parts, and prevent galling, seizure, stick-slip and heat-freeze. MP-50 has a film strength of 300,000 psi and adheres tenaciously to metal surfaces.

MP-50 may be applied directly to hot surfaces without running off or dripping. Conversely, it may be applied at temperatures as low as 0°F (-18°C) where many lubricants solidify. MP-50 is water resistant, withstands extreme weather elements, and helps prevent corrosion on parts exposed to water, steam, most acids and alkalis.

- Lead Free
- Prevents Corrosion
- Lowers Friction
- Contains high percentage MoS
- Water Resistant
- Non-melting
- Prevents Stick-Slip

APPLICATIONS

MP-50 is an extreme service lubricant designed to handle the toughest applications. MP-50 is the premier center bowl lubricant for rail car applications. The low pour point oil provides reduced torque when compared to low tech asphaltic or wax based lubricants in the extremes of winter. The non-melting, thick consistency also allows MP-50 to remain in place under extreme loads and elevated temperatures. Although expensive when compared to standard mandrel lubricants, MP-50 provides a real cost savings in extended mandrel life, better surfaces with fewer imperfections, tears, etc., thus reduced down time and greater efficiency. MP-50 has been selected as the premier valve stem lubricant by many of the OEM valve manufactures. In high pressure, multiple actuation tests MP-50 shows almost no loss in performance where other products result in higher and higher torques with each actuation. MP-50 is the only product specified in NAVSEA TMS S 9558-AA-MMA-100 Volume 10, Book 1 on Marotta control valves.

Based upon the extremes of the applications noted above, MP-50 is ideal for cam lubrication, assembly and subsequent disassembly of press and shrink fit pins, shafts, bushings, sprockets, gears, bearings. Highly loaded gears, open spur gears, marine trans- mission gears or any applications prone to scoring using normal lubricants should be pre-dressed with MP-50 before initial service.

PRODUCT CHARACTERISTICS

| | |
|---|-------------------------------------|
| Thickener | Organo Clay & MoS ₂ |
| Color/Appearance | Blue to Black Paste |
| Dropping Point (ASTM D-566) | None |
| Specific Gravity | 1.40 |
| Density (lbs/gal) | 11.7 |
| Oil Separation, Wt % Loss @ 212°F | <1.0 |
| Flash Point (ASTM D-92) | >430°F (221°C) |
| Coefficient of Friction (K-Factor)* | 0.10 |
| <i>1.25" B-7 Studs @ 55k psi Contact Stress</i> | |
| NLGI Grade | 2½ Penetration |
| @ 77°F, (ASTM D-217) mm x 10' | 250 - 270 |
| Copper Strip Corrosion (ASTMD-4048) | 1A |
| Shell 4-Ball (ASTM D-2596) | 250 |
| Weld Point, kfg minimum | |
| Friction Coefficient-API RP7G | 0.06 |
| K-Factor-Industrial Bolting | 0.11-0.12 |
| Service Rating | -300°F (-185°C) to 750°F (400°C) |

* $(T = K \times D \times F)$ where T = torque, K = nut factor, sometimes called the friction factor, D = bolt diameter, and F = bolt tension generated during tightening. This expression is often called the short-form equation.

PACKAGING

| Code No. | Container Size | Container |
|----------|----------------|--------------|
| 28003 | 1 lb. | Plug Top Can |
| 28007 | 2 lb. | Plug Top Can |
| 28023 | 12 lb. | Pail |
| 28013 | 30 lb. | Pail |
| 28015 | 60 lb. | Pail |
| 28024 | 180 lb. | Drum |
| 28029 | 600 lb. | Drum |

LIMITED WARRANTY

Jet-Lube, Inc. makes the Limited Express Warranty that at the date of delivery, this product shall be free from defects in Jet-Lube, Inc. materials and workmanship.

This Limited Express Warranty is expressly in lieu of any other express or implied warranties, including any implied warranty of merchantability or fitness for a particular purpose, and of any other obligation on the part of Jet-Lube, Inc.

The sole remedy for breach of the Limited Express Warranty shall be the refund of the purchase price. All other liability is negated and disclaimed, and Jet-Lube, Inc. shall not be liable for incidental or consequential damages.

CORPORATE LOCATIONS

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BOLT FRICTION TEST TORQUE VS. TURNS; COEFFICIENT OF FRICTION VS. TURNS

