LOCTITE

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Product Description Sheet

Moly Paste

Maintenance, Repair & Operations, January 2001

PRODUCT DESCRIPTION

LOCTITE® Moly Paste (formerly C-670) contains 65% molybdenum disulfide for maximum lubricity. It is a heavy, black paste with unsurpassed lubricating qualities. Moly Paste reduces friction on threaded fasteners - bolts, nuts, studs - the low and uniform friction coefficient of 0.06 (torque coefficient, k, of 0.11) creates reliable assembly conditions. Lubricant stays in place through heat, load and vibration to insure trouble-free disassembly from -29 to 399ºC (-20 to +750ºF).

Special Features:

- Provides smoother than new metal surfaces.
- Machine tool marks and other irregularities get flattened out to a mirror-smooth finish by the lubricating action of Moly Paste

TYPICAL APPLICATIONS

For the ultimate in low friction solid lubrication,

- Press fit - no binding, no chatter or stick-slip, low force.
- Threaded fasteners - higher clamping from torque, less torque for same clamping, ease of removal (anti-seize).
- Slip-fit - easy assembly, disassembly, ready alignment.
- Metalworking - drawing, stamping, coining, extruding, forging - lower friction, eliminates scratching, galling, metal pick-up, lengthens die life.
- Splines - reduces wear and binding.
- Gears - stands up under high static or slow-moving loads.

DIRECTIONS FOR USE

1. Clean mating surfaces before application.
2. **Note--when grinding or wire brushing, use dust mask.** Dust from cleaning threads may contain metal powders, graphite, or silica quartz. Inhalation may cause lung injury or other harm.
3. Coat mating surfaces, assemble.
4. Do not thin products with solvents.
5. To avoid contamination, keep container closed when not in use.

PROPERTIES OF MATERIAL

	Typical Value
Appearance	Black Paste
Density, lb./gal	16
Specific Gravity	1.9
Flash point, °C (°F)	160 (320)

TYPICAL PERFORMANCE

An anti-seize lubricant used on a bolt helps to develop greater clamp load for the same torque compared to an unlubricated bolt. An additional benefit is greater uniformity in clamp load among a series of bolts. The relationship between torque and clamp load is expressed in the following equation:

T = K x F x D

- **T** = Torque (in-lb, ft-lb, N-m)
- **K** = Torque coefficient or nut factor, determine experimentally.
- **F** = Clamp Load (lb, N)
- **D** = Nominal diameter of bolt (in, ft, m)

K Factor:

K factors are obtained on Grade 8, 1/2" steel bolts and Grade 5 nuts by a test procedure which measures torque tension properties. Lubricant was applied to the bolt threads and both faces of the washer. See properties chart for the torque coefficient or K value for the anti-seize compounds. We feel that this data fairly represents performance to be expected. However, Loctite makes no warranty of specific performance on any individual fastener. In critical applications, it is necessary to determine K values independently.

Properties	Typical Value
Torque coefficient, k (steel nuts & bolts)	.11
Torque coefficient, k (solvent cleaned, not lubricated)	.27
Penetration, mm (ASTM D 217-88 un-worked)	325

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).

Ordering Information

Part Number	Container Size
51048	8 ounce brush top can
51049	1 pound can
51050	12 ounce aerosol
51145	15 pound can

Storage

Product shall be ideally stored in a cool, dry location in unopened containers at a temperature between 8°C to 28°C (46°F to 82°F) unless otherwise labeled. Optimal storage is at the lower half of this temperature range. To prevent contamination of unused product, do not return any material to its original container. For further specific shelf life information, contact your local Technical Service Center.

Data Ranges

The data contained herein may be reported as a typical value and/or range. Values are based on actual test data and are verified on a periodic basis.

Note

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Loctite Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Loctite Corporation's products. Loctite Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Loctite Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.