LOCTITE® Moly 50™

January 2010

PRODUCT DESCRIPTION

LOCTITE® Moly 50™ provides the following product characteristics:

Technology	Molybdenum-disulfide based
Appearance	Smooth gray colored paste[LMS]
Components	One component - requires no mixing
Cure	Non-curing
Application	Anti-seize

LOCTITE® Moly 50™ is a thread lubricant formulated from molydenum disulfide and petrolatum. Use on machine threads, tapered pipe threads, for press-fit and slip-fit joints. This product is typically used in applications with an operating range of -29 °C to +398 °C.

MIL-PRF-83483

LOCTITE® Moly 50™ is tested to the lot requirements of Military Specification MIL-PRF-83483. **Note:** This is a regional approval. Please contact your local Technical Service Center for more information and clarification.

TYPICAL PROPERTIES

Specific Gravity @ 25 °C	1.41
Flash Point - See MSDS	
Penetration, ISO 2137, 1/10 mm	170 to 260[LMS]
Weight Per Gallon, lbs/gal	10.99 to 11.99[LMS]

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 (N·m, lb.in, lb.ft)
K = Torque coefficient or nut factor, determine experimentally
F = Clamp load (N, lb.)
D = Nominal diameter of bolt (mm, in.)

Torque coefficient, k:

12.7 mm steel bolts (grade 8) and nuts (grade 5)	0.13
12.7 mm steel bolts (grade 8) and nuts (grade 5), solvent cleaned, not lubricated	0.27

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).

Directions for use:

1. Use as paste directly from container.
2. Before or during assembly, wipe or brush onto threads and other joint surfaces needing protection.
3. Use full strength. Do not thin.

Loctite Material Specification[LMS]

LMS dated October 19, 2000. Test reports for each batch are available for the indicated properties. LMS test reports include selected QC test parameters considered appropriate to specifications for customer use. Additionally, comprehensive controls are in place to assure product quality and consistency. Special customer specification requirements may be coordinated through Henkel Quality.

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.
Optimal Storage: 8 °C to 21 °C. Storage below 8 °C or greater than 28 °C can adversely affect product properties. Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel Corporation cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

Conversions

(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
µm / 25.4 = mil
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm² x 145 = psi
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

Note

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Reference 0.3