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LOCTITE

Technical Data Sheet

LOCTITE® LB 8012

Known as LOCTITE® 8012 or LOCTITE® Moly Paste
April 2015

PRODUCT DESCRIPTION

LOCTITE® LB 8012 provides the following product characteristics:

Technology	Anti-Seize
Appearance	Dark gray paste[LMS]
Cure	Not applicable
Application	Lubrication
Specific Benefit	• Provides smoother than new metal surfaces

LOCTITE® LB 8012 contains 65% molybdenum disulfide for maximum lubricity. It is a heavy, black paste with unsurpassed lubricating qualities. Machine tool marks and other irregularities are reduced to a mirror-smooth finish by its lubricating action. LOCTITE® LB 8012 reduces friction on threaded fasteners, including bolts, nuts and studs. The low and uniform friction coefficient of 0.06 creates reliable assembly conditions. Lubricant stays in place through heat, load and vibration to ensure a trouble-free disassembly. For the ultimate in low friction solid lubrication: press fit - no binding, no chatter or stick-slip, low force; threaded fasteners - higher clamping for 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 stratching, galling, metal pick-up, lengthens die life; splines - reduces wear and binding; gears - stands up under high static or slow-moving loads. This product is typically used in applications with an operating range of -29 °C to +400 °C.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 25 °C	1.92
Flash Point - See SDS	
Weight Per Gallon, lbs/gal	15.5 to 16.8[LMS]
Penetration, ISO 2137, unworked, 1/10 mm	300 to 350[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:

$$T = K \times F \times D$$

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)	0.11
12.7 mm steel bolts (grade 8) and nuts (grade 5), solvent cleaned, not lubricated	0.27

(In critical applications, it is necessary to determine the K values independently. Henkel Corporation makes no warranty of specific performance on any individual fastener)

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 Safety Data Sheet (SDS).

Directions for use:

1. For best performance the mating surface should be clean and free of grease.
2. **Note**: **When grinding or wire brushing, use a dust mask**. Dust from cleaning threads may contain metal compounds. Inhalation may cause lung injury or other harm.
3. Apply thin coating to mating surfaces, assemble.
4. Do not use thinner.
5. Keep container tightly closed when not in use.

Loctite Material Specification[LMS]
LMS dated October 16, 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

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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:
The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.
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Henkel Americas
+860.571.5100

Henkel Europe
+49.89.320800.1800

Henkel Asia Pacific
+86.21.2891.8859

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