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Technical Data Sheet

LOCTITE® LB N-1000

January 2015

PRODUCT DESCRIPTION

LOCTITE® LB N-1000 provides the following product characteristics:

Technology	Anti-seize
Chemical type	Copper-based
Appearance	Copper colored paste
Components	One component - requires no mixing
Cure	Non-curing
Application	Lubrication

LOCTITE® LB N-1000 is a copper-based anti-seize lubricant, produced under 100% controlled conditions for the highest purity. It is formulated to have the lowest practical levels of halogens, sulfur and heavy metals. It has a general composition of copper and graphite flake in petroleum carrier. All ingredients are selected for extreme purity. Typical applications include bolts, studs, valves, pipe fittings, slip fits and press fits in nuclear power generating plants, chemical plants, pharmaceutical plants, paper mills and other locations where stainless steel fasteners are used. During assembly, it prevents high friction, galling and seizing and promotes uniform and predictable clamping. During operation, the high purity prevents stress corrosion. During disassembly, it prevents seizing, galling and destruction of threads. This product is typically used in applications with an operating range up to 982 °C.

Typical Properties

Specific gravity @ 25°C	1.14 to 1.24
Unworked penetration,ISO 2137, 1/10mm	330 to 375
Weight per gallon, lbs/gal	9.5 to 10.1
Flash point - see SDS	

Ionic contaminants, ppm:

Chloride	≤50
Sulfur	≤100
Lead	≤100
Tin	≤200
Cadmium	≤5
Zinc	≤500
Mercury	≤5

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)	0.17
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.

Directions for use:

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

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Storage
Store product in the unopened container in a dry location. Storage information may be indicated on the product package labeling.

Optimal Storage: 10°C to 25°C. Storage below 5°C or greater than 30°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 Henkel representative.

Product specification
The technical data contained herein are intended as reference only and are not considered specifications for the product. Product specifications are located on the Certificate of Analysis or please contact Henkel representative.

Approval and Certificate
Please contact Henkel representative for related approval or certificate of this product.

Data ranges
The data contained herein may be reported as a typical value. Values are based on actual test data and are verified on a periodic basis.
Temperature/Humidity Ranges: 23°C / 50% RH = 23±2°C / 50±5% RH

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

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