

Lubricating

WHY USE A LOCTITE® LUBRICANT?

LOCTITE® Lubricants offer protection for industrial plants and equipment. This range includes organic, mineral and synthetic-based products meeting the requirements of industrial applications.

WHAT IS THE FUNCTION OF A LUBRICANT?

The typical function of a lubricant is to protect against friction and wear. Lubricants are also used to protect against corrosion by displacing moisture and leaving a continuous coating on the part.

WHAT CONSIDERATIONS ARE IMPORTANT WHEN CHOOSING A LUBRICANT?

When choosing a lubricant, it is important to consider the intended application as well as the environmental conditions to which the assembly will be exposed. Environmental conditions are critical to the successful selection of the right lubricant product. Factors including high temperature, harsh chemicals and contaminants may have an adverse effect on the expected lubricant performance.

KEY BENEFITS OF USING A LOCTITE® LUBRICANT:

- Improved high temperature performance
- Higher lubricity
- Provides lubrication in extreme environments
- Superior water-washout properties
- Higher purity
- Protects against rust, corrosion, seizing and galling

ANTI-SEIZE

LOCTITE® anti-seize products provide protection against rust, corrosion, seizing and galling, as well as lubrication. Anti-seizes are typically the products of choice for high temperature applications because of their unique ability to provide protection in extreme temperature conditions. Each product contains a combination of solid lubricating agents resulting in different high temperature limits and lubricities. These are the two major factors in choosing the right anti-seize product for your application.

METAL-FREE

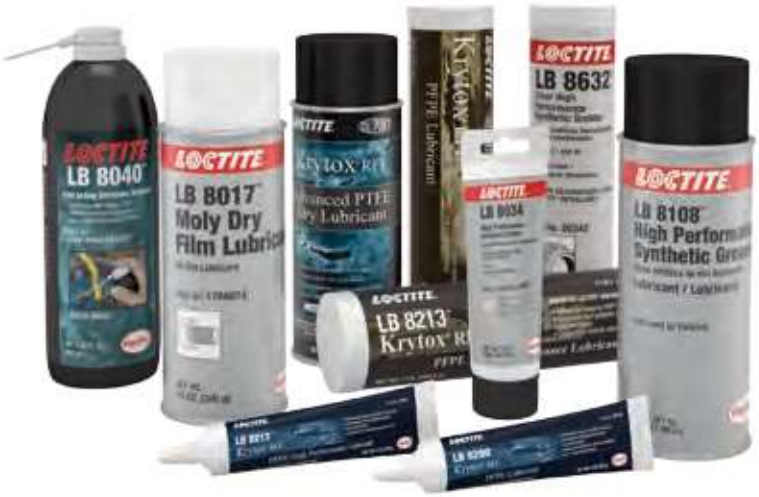
The "Metal-Free" products utilize nonmetallic fillers to achieve high temperature resistance properties as well as lubricity. These fillers typically provide a much higher temperature resistance than that of metallic fillers and, due to the less abrasive nature of these fillers, they also typically provide lower K-values, resulting in higher lubricity.

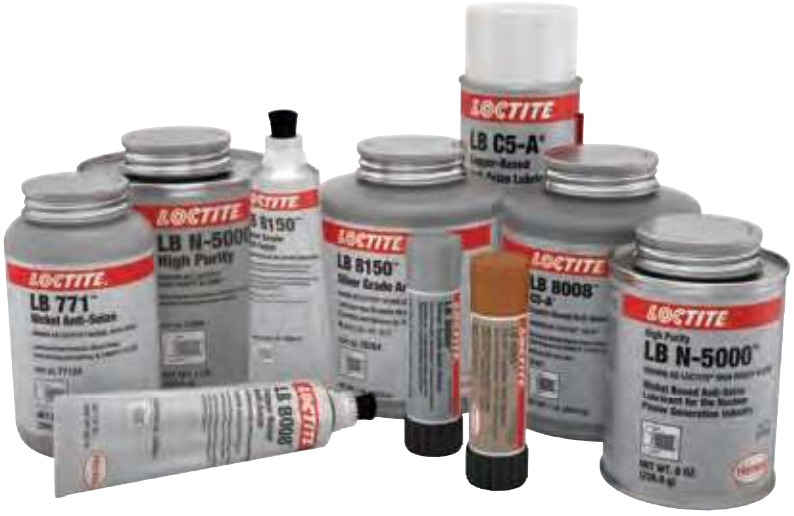
APPLICATIONS:

- Pump
- Gearbox
- Hoists
- Conveyor Systems
- Overhead Doors
- Way Lube
- Seals

INDUSTRIES:

- Mining
- Wastewater
- Power Generation
- Food Processing
- Pulp and Paper
- Beverage

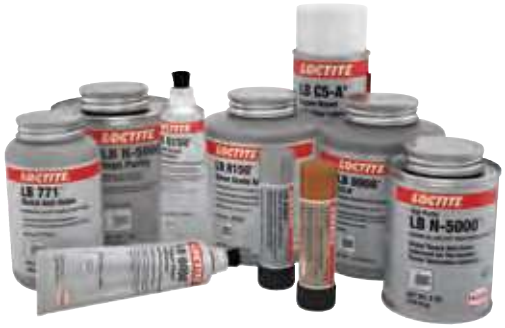




Henkel Adhesive and Sealant Product Specialists are available to assist you. For application assistance, call 1-800-LOCTITE (562-8483); *within Canada, call 1-800-263-5043;* or, contact us through the web at na.henkel-adhesives.com/loctite.

STRAIGHT FROM *The Source*

Anti-Seize



Your Application

HELPFUL HINT

- Look for this icon for Metal-Free LOCTITE® Anti-Seize Products.

WHAT TYPE OF ANTI-SEIZE DO YOU REQUIRE?

General-Purpose

Up to 1600°F (871°C)	Up to 1800°F (982°C)	Up to 2400°F (1315°C)
Available in a Paste or Semisolid Stick	Available in a Paste or Semisolid Stick	

Solution

	LB 8150™ LB 8151™ LB 8060™	LB 8007™ LB 8008™ LB 8065™	LB 771™ LB 8507™
Color	Silver	Copper	Silver
Solid Lubricating Agent	Graphite/Aluminum	Copper/Graphite	Nickel/Graphite
Torque Coefficient*	0.18	0.16	0.13
Temperature Range	-20°F to 1600°F (-29°C to 871°C)	-20°F to 1800°F (-29°C to 982°C)	-20°F to 2400°F (-29°C to 1315°C)
Metal-Free	No	No	No

Product Description

LOCTITE® LB 8150™, LB 8151™, LB 8060™ Anti-Seize

Heavy-duty, temperature resistant, petroleum-based lubricant compound fortified with graphite and metallic flake. Inert and will not evaporate or harden in extreme cold or heat. For use in assemblies up to 1600°F (871°C). **CFIA Listed.**

P/N	Package Size
38181	7 g pouch
1999141	7 fl. oz. brush-top tube
80209	4 oz. brush-top can
76732	8 oz. brush-top can
76764	1 lb. brush-top can
80206	1 gallon can
76775	5 gallon pail

P/N	Package Size
LOCTITE® LB 8151™	
76759	12 oz. net wt. aerosol
LOCTITE® LB 8060™	
37230	20 g stick

LOCTITE® LB 8007™, LB 8008™, LB 8065™ C5-A® Copper-Based Anti-Seize

Exclusive formula suspends copper and graphite in a high quality grease. Protects metal parts from rust, corrosion, galling and seizing at temperatures to 1800°F (982°C). **CFIA Listed Stick.**

P/N	Package Size
51299	2 g pouch
51277	7 g pouch
51001	1 oz. tube
51002	4 oz. tube
51144	4 oz. brush-top can
51147	8 oz. brush-top can
51005	10 oz. brush-top can
51004	13 oz. cartridge
51006	1 lb. can
51007	1 lb. brush-top can
39643	1 lb. brush-top metal can
51008	2.5 lb. can
51009	8 lb. can
38584	25 lb. pail
51011	42 lb. pail
51146	425 lb. drum
1999559	7 fl. oz. brush-top tube

P/N	Package Size
LOCTITE® LB 8007™	
1786073	12 oz. net wt. aerosol
LOCTITE® LB 8065™	
37229	20 g stick

LOCTITE® LB 771™, LB 8507™ Nickel Anti-Seize

Copper-free. Recommended for stainless steel and other metal fittings. For preventing corrosion, seizing and galling in harsh chemical environments and temperatures to 2400°F (1315°C).

P/N	Package Size
77124	8 oz. brush-top can
1852753	12 oz. net wt. aerosol
51102	1 lb. can
77164	1 lb. brush-top can
51152	8 lb. can
77175	5 gallon pail

ANTI-SEIZE IS OFTEN...

HELPFUL HINTS

- Used as a gasket release agent in instances where reuse of the gasket is desirable
- Recommended for use on spark plug threads and electrical connections

* K value on steel nuts and bolts.



Stainless Steel and Titanium Applications	Soft Metal Applications	Incidental Food Contact	Water-Resistant
Available in a Paste or Semisolid Stick			
LB 8009™ LB 8070™	LB 8044™	LB 8014™	LB 8023™
Grey	Grey	White	Black
Graphite/Calcium Fluoride	Zinc	White Lubricating Solids	Calcium Sulfonate
0.16	0.15	0.13	0.18
-20°F to 2400°F (-29°C to 1315°C)	-20°F to 750°F (-29°C to 399°C)	-20°F to 750°F (-29°C to 399°C)	-20°F to 2400°F (-29°C to 1315°C)
Yes	No	Yes	Yes

LOCTITE® LB 8009™ and LB 8070™ Heavy Duty Anti-Seize

Metal-Free

Excellent lubricity. Provides outstanding lubrication to all metals including stainless steel, aluminum and soft metals up to 2400°F (1315°C).
CFIA Listed.

P/N	Package Size
51609	1 oz. tube
51605	9 oz. brush-top can
51606	18 oz. brush-top can
51607	2.3 lb. can
51608	45 lb. pail
1999560	7 fl. oz. brush-top tube

P/N	Package Size
LOCTITE® LB 8070™	
41205	20 g

LOCTITE® LB 8044™ Zinc Anti-Seize

Protects aluminum and ferrous surfaces from seizure and corrosion up to 750°F (399°C).

P/N	Package Size
39901	1 lb. can

LOCTITE® LB 8014™ Food Grade Anti-Seize

Metal-Free

Prevents seizure, galling and friction in stainless steel and other metal parts up to 750°F (399°C).
NSF H1 rated for incidental food contact. CFIA Listed.

P/N	Package Size
1167237	8 oz. brush-top can
1169241	2 lb. can
1170163	40 lb. pail

LOCTITE® LB 8023™ Marine Grade Anti-Seize

Formulated to protect assemblies exposed directly or indirectly to fresh water and salt water, this anti-seize works especially well in high humidity conditions. It has excellent lubricity, superior water wash-out spray resistance and prevents galvanic corrosion.
ABS Approved.

P/N	Package Size
34395	8 oz. brush-top can
34026	16 oz. brush-top can
1999556	7 fl. oz. brush-top tube

Anti-Seize

LOCTITE® Anti-Seize Properties Chart

LOCTITE® PRODUCT		ITEM NUMBER	PACKAGE TYPE/SIZE	TEMPERATURE RESISTANCE	COLOR	K VALUE*
GENERAL-PURPOSE	LB 8008™	51299 51277 51001 51002 51144 51147 51005 1786073 51004 1999559 51006 51007 39643 51008 51009 38584 51011 51146	2 g pouch 7 g pouch 1 oz. tube 4 oz. tube 4 oz. brush-top can 8 oz. brush-top can 10 oz. brush-top can 12 oz. net wt. aerosol 13 oz. cartridge 7 fl. oz. brush-top tube 1 lb. can 1 lb. brush-top can 1 lb. brush-top metal can 2.5 lb. can 8 lb. can 25 lb. pail 42 lb. pail 425 lb. drum	1800°F (982°C)	Copper	0.16
	LB 8065™	37229	20 g stick			
	LB 8150™	38181 1999141 80209 76732 76764 80206 76775	7 g pouch 7 fl. oz. brush-top tube 4 oz. brush-top can 8 oz. brush-top can 1 lb. brush-top can 1 gallon can 5 gallon pail	1600°F (871°C)	Silver	0.18
	LB 8151™	76759	12 oz. net wt. aerosol			
	LB 8060™	37230	20 g stick			
	LB 771™	77124 51102 77164 51152 77175	8 oz. brush-top can 1 lb. can 1 lb. brush-top can 8 lb. can 5 gallon pail	2400°F (1315°C)	Silver	0.13
	LB 8507™	1852753	12 oz. net wt. aerosol			
HIGH PERFORMANCE	LB 8009™	51609 51605 51606 1999560 51607 51608	1 oz. tube 9 oz. brush-top can 18 oz. brush-top can 7 fl. oz. brush-top tube 2.3 lb. can 45 lb. pail	2400°F (1315°C)	Grey	0.16
	LB 8070™	41205	20 g stick			
	LB 8023™	34395 1999556 34026	8 oz. brush-top can 7 fl. oz. brush-top tube 16 oz. brush-top can	2400°F (1315°C)	Black	0.18
	LB 8036™	34517 34518	8 oz. brush-top can 16 oz. brush-top can	2000°F (1093°C)	White	0.16
SPECIALTY	LB 8014™	1167237 1169241 1170163	8 oz. brush-top can 2 lb. can 40 lb. pail	750°F (400°C)	White	0.13
	LB 8504™	51084	1 lb. can	900°F (482°C)	Black	0.13
	LB 8012™	1852755 51048 51049 51145	12 oz. net wt. aerosol 8 oz. brush-top can 1 lb. brush-top can 15 lb. can	750°F (400°C)	Black	0.11
	LB 8700™	51094	1 lb. can	750°F (400°C)	Black	0.13
	LB 8044™	39901	1 lb. can	750°F (400°C)	Grey	0.15
HIGH PURITY	LB 8013™	51272 51270 51273	8 oz. brush-top can 1 lb. brush-top can 2 lb. can	2400°F (1315°C)	Silver	0.16
	LB N-5000™	51346 51243 51269 51246 51245	1 oz. tube 8 oz. brush-top can 1 lb. brush-top can 2 lb. can 8 lb. can	2400°F (1315°C)	Silver	0.15
	HIGH PERFORMANCE LB N-5000	51572	1 lb. brush-top can	2400°F (1315°C)	Silver	0.15
	LB N-1000™	51115 51116 51117	8 oz. brush-top can 1 lb. can 2 lb. can	1800°F (982°C)	Copper	0.17

ITEMS IN RED = *Source's* PICK or NEW

* See K Value on next page.

LOCTITE® SF 7617™ INDUSTRIAL HAND WIPES

Clean hands anywhere! Quick and easy to use – no rinsing, drying or residue. Each 9 ½ in. x 12 in. towel is premoistened with powerful citrus-scented cleaning formula. Towels are abrasive enough to scrub off the toughest grease and grime.

Item # 34943 75 count
34944 130 count

ADDITIONAL RESOURCES

LOCTITE® Anti-Seize Applications Chart

	LOCTITE® PRODUCT	MAXIMUM ANTI-SEIZE PROPERTIES	FOR MAXIMUM LUBRICITY	FOR LOW SPEEDS, HIGH LOADS	EXTREME HIGH TEMPERATURE RESISTANCE (TO 2000°F-2400°F)	EXTREME CHEMICAL RESISTANCE	ELECTRICALLY CONDUCTIVE	FOR ALUMINUM/ SOFT METALS	FOR STAINLESS STEEL	METAL-FREE FORMULATION	COPPER-FREE FORMULATION	KEY SPECIFICATIONS & AGENCY APPROVALS
GENERAL-PURPOSE	LB 8008™	△					△	△	△			CFIA Listed (stick)
	LB 8150™	△					△	△	△			CFIA Listed
	LB 771™	△			▲	▲	△		△		▲	N/A
HIGH PERFORMANCE	LB 8009™	▲			▲	△	△	△	▲	▲	▲	N/A
	LB 8023™	▲			▲			△	▲	▲	▲	ABS
	LB 8036™	△			▲			△	△	▲	▲	N/A
SPECIALTY	LB 8014™	■						△	▲	▲	▲	NSF H1, CFIA Listed
	LB 8504™	■				△	▲	△		▲	▲	N/A
	LB 8012™	■	▲	▲					▲	▲	▲	N/A
	LB 8700™	■	△	△					▲	▲	▲	N/A
	LB 8044™	■					■	▲	△			N/A
HIGH PURITY	LB 8013™	▲			▲	△	△		△	▲	▲	N/A
	LB N-5000™	△			▲	▲	△		△		▲	N/A
	HIGH PERFORMANCE LB N-5000™	▲	▲		▲	▲	△		△		▲	N/A
	LB N-1000™	△					△		△			N/A

ITEMS IN RED = *Source's* PICK or NEW

△ Good Choice ▲ Preferred Choice ■ Acceptable Choice

TORQUE GUIDE

Proper clamp load is an essential part of any bolted assembly for trouble-free operations. Torquing either nut or bolt creates the clamp load. An anti-seize lubricant used on a bolt helps to develop greater clamp load for the same torque compared to an non-lubricated 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 = KFD.

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

K Factors: K factors are obtained on Grade 8, ½ in. steel bolts and grade 5 nuts by a test procedure that measures torque tension properties. Lubricant was applied to the bolt threads and both faces of the washer.

See the Properties Chart for the torque coefficient or K value for the anti-seize compounds.

Henkel Corporation believes that this data fairly represents performance to be expected. However, Henkel makes no warranty of specific performance on any individual fastener. In critical applications, it is necessary to determine K values independently.

PLEASE NOTE: There are two "coefficients" used to express the relationship between torque and tension: torque coefficient (also called "nut factor") is the most commonly used. A different concept is the "friction coefficient," which has a value of 2/3 (or 67%) of the torque coefficient.

ADDITIONAL RESOURCES