



Distributed By: Ladd Research
 83 Holly Court
 Williston, VT 05495
 Tel: (802) 658-4961
 Fax: (802) 660-8859
 Email: sales@laddresearch.com

Molydag® 254N

Ladd Catalog Numbers: 60835G, 60835P, 60835Q

Resin Bonded MoS₂ Lubricant Coating

P
R
O
D
U
C
T

D
A
T
A

S
H
E
E
T

DESCRIPTION

Molydag® 254N is one of a series of Henkel's Acheson resin-bonded lubricant coatings designed to provide dry film lubrication in a variety of industrial, consumer and military applications.

Molydag® 254N is a synergistic combination of MoS₂ and other lubricants dispersed in an epoxy resin solution. **Molydag® 254N** can be applied by standard brush, dip-spin, or spray techniques.

Molydag® 254N provides lifetime lubrication and good corrosion resistance for components which are inaccessible after assembly, but nevertheless must continue to function reliably.

Molydag® 254N provides an effective performance, even as a very thin film (0.0003 inch or 8 microns), thus there is little interference with operating tolerances.

ADVANTAGES

- Good adhesion to metals
- Low coefficient of friction
- Good wear life (resistance to fretting and galling)
- Corrosion resistance
- Resistance to many chemicals and solvents

TYPICAL APPLICATIONS

- Construction Equipment
- Business Machines
- Jet Engine Parts
- Woodworking Equipment
- Mining Equipment
- Safety Equipment
- Cold-Heading Machinery
- Threaded Connections
- Farm Machinery
- Aircraft Fasteners
- High Tension Nuts and Bolts

TYPICAL PROPERTIES (as supplied)

	<u>Molydag 254N</u>
Lubricant	: molybdenum disulfide and other lubricating solids
Color	: dark gray
Consistency	: liquid
Binder	: epoxy resin
Density	: 11.2 lb/gal (1.34 kg/l)
Flash point	: 24°F (-4°C)
VOC (dehydrated)	: 5.0 lb/gal (594 g/l)

TYPICAL PROPERTIES (cured coating)

Color	: dark gray
Coefficient of friction	: 0.14 (static)
Service temperature	
continuous	: 275°F (135°C)
intermittent	: 300°F (149°C)

**APPLICATION
DETAILS**

Surface Preparation

The performance obtained by a coating of **Molydag® 254N** depends on the care given to substrate preparation, application, and curing. The following pretreatments are recommended:

- Steel : Grit or vapor blast, degrease and chemically pretreat with Lubrite 2*, Granodine 11*, or Bonderite 100*.
- Stainless Steel : Grit or vapor blast, degrease.
- Aluminum : Degrease or solvent clean and pretreat with Alodine 1200* or equivalent. Coating may also be applied over anodized surface.
- Copper Alloys : Degrease or solvent clean, grit blast, or chemically pretreat with Ebonol C**.

*Parker + Amchem

**Enthone, Inc.

Equivalent products are available from Turco, Detrex, MacDermid, and others.

Mixing

Molydag® 254N lubricant is supplied as a one-component concentrate at a solids concentration of 55 percent. Dilution depends on the method of application to be used and the coating thickness desired. A 1:1 blend of toluene and MEK (methyl ethyl ketone) can be used as a diluent. Mixing is best accomplished by mechanical agitation.

Application

Molydag® 254N may be applied by spray, dip-spin, or brush methods according to individual application requirements.

For spray application, external atomizing type spray guns are recommended, e.g.: DeVilbiss, AV-601 type; Paasche Air Brush Type AUR-ARF 3-3 multiple head assembly.

Adjust the spray gun to provide a well-atomized spray at 25 to 40 psi (1.8 to 2.8 kg/sq cm) air pressure. For maximum corrosion resistance, apply multiple thin coats with a ten-minute air dry period between coats to minimize pin holes. Oven curing is required only after the final coat of lubricant is applied.

Note: It is recommended that an agitator-type spray cup be used to maintain product suspension.

Curing

A normal cure schedule is a cure of 60 minutes at 300°F (149°C). However, performance may be improved with a cure of 60 minutes at 400°F (204°C). For example, this cure cycle increases the Falex endurance life.

**APPLICATION
DETAILS
(Continued)**

**STORAGE/SHIPPING
HANDLING**

Shelf life for this product is 2 years from date of qualification under original seal. Keep container tightly closed when not in use. Store in a cool, well ventilated area. Empty containers may retain hazardous properties. Follow all MSDS/label warnings even after container is emptied.

**APPLICATION
ASSISTANCE**

Henkel's **Application Specialists** are available to assist you in production start-up with **Molydag 254**. For more information, contact Henkel, (866) 332.7024 , or visit our website at www.henkelna.com/metals for the Henkel global location nearest you.

HEALTH & SAFETY

Harmful if swallowed, inhaled, or absorbed through skin. May cause eye irritation. Wash thoroughly after handling. Keep container tightly closed when not in use. Use with adequate ventilation. Avoid breathing vapor. See Henkel's Material Safety Data Sheet for proper first aid instructions.

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, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel 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 Henkel 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.



Henkel Corporation
32100 Stephenson Highway
Madison Heights, MI 48071
866.332.7024

Distributed By: Ladd Research
83 Holly Court
Williston, VT 05495
Tel: (802) 658-4961
Fax: (802) 660-8859
Email: sales@laddresearch.com