

Product Information

Specialty Lubricants

Dow Corning[®] G-n Metal Assembly Paste and *Dow Corning*[®] G-n Metal Assembly Spray

FEATURES

- Excellent protection against fretting wear and corrosion
- Extends service life
- Low friction
- Lubricate beyond the yield point of most metals in boundary applications, reducing wear and helping to prevent seizing, galling and excessive friction
- Aid run-in and reduce frictional force and surface damage
- Low coefficient of friction allows for effective conversion of torquing force into holding force; reduces the force required for disassembly of threaded fasteners

COMPOSITION

- Solid lubricants in mineral oil (with non-chlorofluorohydrocarbon propellant in aerosol)

Extreme-pressure lubricant for assembly, press fitting, threaded connections, running-in and maintenance

USES

Dow Corning[®] G-n Metal Assembly Paste lubricates surfaces subjected to extreme pressures. Specific applications include:

- Running-in lubricant – for new or rebuilt equipment, such as gears, splines, journal bearings, cams and ways
- Metalworking – helps prevent galling, welding and metal pickup on tools and dies in machining, stamping, and drawing operations, tube bending, thread rolling, cold heading, swaging and forging
- Assembly lubricant – reduces torque in tightening threaded fasteners and tension variation from bolt to bolt; eases disassembly and reduces chance of damage
- Helps prevent fretting wear and corrosion, and cold welding of bearing shafts, bushings and splines
- Press-fitting lubricant – allows press fitting without chatter or stick-slip in most cases; reduces the force required for interference fitting and minimizes distortion

Dow Corning[®] G-n Metal Assembly Spray is primarily designed as a running-in lubricant for plain bearings, splines, gears, cams and ways, and because of its low coefficient of friction, as a lubricant for movable screws, threaded spindles and lead screws. It can also be used wherever protection against friction and high load conditions is needed, where burnishing is impractical, or where a paste in aerosol form is desired. It is suitable for airframe and aircraft engine applications.

TYPICAL PROPERTIES

These values are not intended for use in preparing specifications.

Method	Test	Unit	Result
	Appearance		Buttery, grainy
	Color		Gray-black
CTM ¹ 0300	Consistency, penetration, unworked	mm/10	300
	Specific Gravity		1.33
	Approximate Service Temperature Range,		
	Solid Lubricant	°F (°C)	0 to 750 (-18 to 399)
	Base Oil	°F (°C)	0 to 250 (-18 to 121)
CTM 0394	Coefficient of Friction ²		0.08
CTM 0351	Four Ball Wear Scar (80 kg, 1 hour, 1200 rpm, steel vs. steel)	mm	0.76
	Four-Ball Weld Load	kg (lb)	499 (1100)
CTM 0172	Effect on Copper Strip, after 2 hours at 212°F (100°C)		#1, No discoloration

¹CTMs (Corporate Test Methods) correspond to standard ASTM tests in most instances. Copies of CTMs are available upon request.

²LFW-4 Press-Fit Test: steel vs. steel; velocity 0.6 in/min, 10,000 psi, room temperature.

Specification Writers: Please obtain a copy of the Dow Corning Sales Specification for these products and use them as a basis for your specifications. They may be obtained from any Dow Corning Sales Office, or from Dow Corning Customer Service in Midland, MI. Call (517) 496-6000.

DESCRIPTION

Dow Corning G-n Metal Assembly Paste is a multi-purpose, heavy-duty lubricating paste containing a blend of molybdenum disulfide and white solid lubricants in a mineral oil. It helps prevent galling during run-in, helps extend the service life of moving parts, and helps protect against fretting wear and corrosion as well as welding of static joints.

Dow Corning G-n Metal Assembly Spray is a high-performance paste in aerosol form. It is particularly effective as a running-in lubricant. This product features a low coefficient of friction immediately upon application, without burnishing.

HOW TO USE

Dow Corning G-n Metal Assembly Paste can be applied in a thin film to clean surfaces by either of the following methods:

- Burnishing – Rub on with a clean, lint-free cloth.
- Brushing – Brush on, preferably using a brush with short, stiff bristles.

Dow Corning G-n Metal Assembly Spray should be applied in a sweeping motion to obtain a thin, uniform coating. Avoid over-application. No burnishing is required, and although best results are obtained on clean, dry surfaces, *Dow Corning* G-n Metal Assembly Spray can also be applied on oily surfaces. The lubricant's solvent evaporates within 30 minutes.

USE LIMITATIONS

When used on threaded fasteners, mineral oil torquing specifications should be reduced by one-third to avoid over tightening.

Dow Corning G-n Metal Assembly Paste is not recommended for use in pressure lines and grease guns.

These products are neither tested nor represented as suitable for medical or pharmaceutical uses.

SHIPPING LIMITATIONS

Dow Corning G-n Metal Assembly Paste – None.

Dow Corning G-n Metal Assembly Spray – DOT Classification: Extremely flammable.

STORAGE AND SHELF LIFE

When stored at or below 77°F (25°C), *Dow Corning* G-n Metal Assembly Paste has a useable life of 60 months from date of manufacture. An oil layer may form on the product surface during storage but may be readily mixed back in by stirring.

When stored at or below 77°F (25°C), *Dow Corning* G-n Metal Assembly Spray has a useable life of 60 months from date of manufacture. Because it is an aerosol, punctures should be avoided, and containers should be kept away from heat, sparks and open flame.

PACKAGING

Dow Corning G-n Metal Assembly Paste is available in 2.8-oz (79.3-g), 1-pt (500-g), and 10-, 50- and 165-lb (4.5-, 22.6- and 74.8-kg) containers. *Dow Corning* G-n Metal Assembly Spray is supplied in 16-fl oz (0.47-L) size aerosol cans containing 11 oz (312 g). All weights net.

SAFE HANDLING INFORMATION

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT

INCLUDED. BEFORE HANDLING, READ PRODUCT AND MATERIAL SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE MATERIAL SAFETY DATA SHEET IS AVAILABLE FROM YOUR DOW CORNING REPRESENTATIVE, OR DISTRIBUTOR, OR BY WRITING TO DOW CORNING CUSTOMER SERVICE, OR BY CALLING (517) 496-6000.

WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that *Dow Corning's* products are safe, effective, and fully satisfactory for the intended end use.

Dow Corning's sole warranty is that the product will meet the *Dow Corning* sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. *Dow Corning* specifically disclaims any other express or implied warranty of fitness for a particular purpose or merchantability. Unless *Dow Corning* provides you with a specific, duly signed endorsement of fitness for use, *Dow Corning* disclaims liability for any incidental or consequential damages. Suggestions of use shall not be taken as inducements to infringe any patent.