



MOLYKOTE
FROM DOW CORNING



Molykote® G-1502FM Synthetic Bearing and Gear Grease

Tenaciously Tacky

And that's exactly what your equipment needs

Dow Corning understands the challenges that you and your equipment face. Mechanical equipment operating in a water rich environment requires special lubrication that's tough enough to perform effectively – to simultaneously resist water spray-off and prevent wear and corrosion. Improper lubricant selection can lead to surface degradation, poor equipment reliability and a need for frequent, unplanned maintenance. *Molykote*® G-1502FM Synthetic Bearing and Gear Grease is the technology-driven solution that helps you reduce costs, extend equipment life and simplify your own.

The spray-off faceoff

After receiving many inquiries from customers who were experiencing component failure due to grease “spray-off,” and excessive wear and corrosion, Molykote experts noted a gap in existing market offerings. They identified commonly used greases that claimed to offer “good,” “excellent,” “superior” and “outstanding” performance in water rich environments. In order to quantify those claims, they identified three ASTM standards to better understand the critical elements of lubrication performance in these applications.

Water Spray-off - ASTM D-4049

Wear - ASTM D-2266

Corrosion - ASTM D-6138-07*

*This test was modified slightly to better reflect real-world operating conditions.

The resulting data allowed them to establish benchmarks that Dow Corning looked to exceed when developing *Molykote*® G-1502FM grease. Once their formulation was finalized, the product was subjected to the same battery of tests to ensure that it provided a measurable improvement.

Water spray-off and wear resistance

The results of the wear and water spray-off testing are shown in Figure 1. Of the ten greases that were tested, *Molykote*® G-1502FM Synthetic Bearing and Gear Grease best demonstrated the ability to minimize both grease loss and wear scar. This means that in your high-pressure wash down and spray-off environments, *Molykote*® G-1502FM grease stays put longer and increases equipment life – stretching your maintenance intervals but not your budget. In addition, Molykote experts ran the same four-ball wear test at a slower speed (100 RPM) and observed a wear scar that was nearly identical to the results of the original test. This demonstrated that *Molykote*® G-1502FM grease can deliver effective results even at low speeds.

Figure 1: *Molykote*® G-1502FM Grease Minimizes Wear Scar and Grease Loss



NOTE: All four-ball wear scar results are recorded as average results of vertical and horizontal scars from three different balls.

Based on the testing that was performed, Dow Corning was able to conclude that *Molykote*® G-1502FM grease best balances two lubrication elements that are key to success in water rich environments: resistance to water spray-off and wear.



Comparative corrosion testing on bearing races

Corrosion prevention

In addition, comparative corrosion testing was performed. An observation of bearing races after the corrosion testing revealed that *Molykote*® G-1502FM grease provided the best protection against rust. Only five percent of the area on the outer bearing race showed evidence of corrosion. In comparison, the race of a bearing lubricated with a competitor's grease showed nearly 100 percent corrosion on its surface area.

The cost and time savings stick, too.

Upon commercial availability, *Molykote*® G-1502FM grease was evaluated in the field. Just look at the difference in costs that were documented by a food production facility in the United States. The company tracked costs of using their former grease against *Molykote*® G-1502FM grease.

Molykote® G-1502FM Grease

Before

Material and labor: \$13,976
70 work orders
Avg work orders per month: 7
Avg cost per month: \$1,398
Avg cost per work order: \$199.65
Avg cost per conveyor: \$499.14
(Ten-month time span)

After

Material and labor: \$2,354
14 work orders
Avg work orders per month: 1.75
Avg cost per month: \$294
Avg cost per work order: \$168.15
Avg cost per conveyor: \$78.47
(Eight-month time span)

Now you can get the equipment performance and lubrication life you need in water rich environments. *Molykote*® G-1502FM grease has been tested in the lab and proven in the field.

Additional benefits include:

- Wide service temperature range
- Good shear stability
- Compatibility with most industrial and engineering substrates including many plastic and rubber materials

Typical Properties:

Color	White
Dropping Point	520° C
NLGI Number	2.5
Shelf Life	5 years
Temperature Range	-40° C to 149° C
Unworked Penetration	255 mm/10
Viscosity Index	145
Worked Penetration	250 mm/10

For a well balanced grease that doesn't spray off and protects the surface integrity of your components, choose the tenaciously tacky *Molykote*® G-1502FM grease. Positively impact the time and money you spend on reliability and maintenance; it's exactly what your equipment needs.

Learn more

For more information on *Molykote*® G-1502FM Synthetic Bearing and Gear Grease, contact a Dow Corning distributor near you, or send us an email at molykote.lubricants@dowcorning.com.

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