

Molykote® Lubrication Solutions for Chemical and Petrochemical Industries



 $Molykote^{\circledast} \ Smart \ Lubrication^{\intercal M} \ from \ Dow \ Corning$







One of the most complete packages of solutions available.

Synthetic Fluids • Ultra High-Purity Mineral Oils • Specialty Lubricants • Local Inventory and Technical Support

Take the Cost Out of Your Operations.

Total industrial lubrication

No matter what your lubrication requirements, we have the Molykote® brand lubricants and related services for the chemical/petrochemical industry to support virtually every need for your plant maintenance and repairs.

Molykote products provide cost-efficient solutions in many different applications and environments—from standard conditions to extreme temperature ranges, loads and speeds, as well as in the presence of harsh chemicals.

Extend Equipment Life. Simplify Yours.

Improve the efficiency and reliability of your plant maintenance investments by eliminating downtime, reducing capital tied up in inventory and doing more work with greater efficiency. The Molykote® Lubrication Management Program contributes to efficiency improvements in all these areas:

- Reduce your overall maintenance costs
- · Extend equipment life, improve reliability
- Streamline your purchasing process

The Molykote Lubrication Management Program consists of world-class lubricants and three distinct services that combine to meet virtually every one of your plant lubrication needs.

One of the Most Complete Packages of Industrial Lubricants Available

During the last 60 years, Molykote has advanced from a molybdenum-based product to one of the most complete packages of industrial lubricants and fluids available. It includes low-volume specialty lubricants, high-volume fluids, and everything in between—to meet just about all your plant lubrication needs.

The product line includes our traditional offering of specialty greases, compounds, pastes, anti-friction coatings and dispersions. Many incorporate solid lubricants to reduce stress and wear in a wide variety of demanding applications with performance requirements that cannot be met by conventional lubricants. These lubricants improve reliability in a range of conditions:

- Under high pressure or in extreme temperatures
- Where you have vibration and shock loads
- In sliding surfaces operating under heavy loading; and
- During the start-up and shutdown phases of your plant, equipment and machine operations.

Our offering also includes a new line of Molykote brand Synthetic Fluids and Ultra High-Purity Mineral Oils that can last considerably longer than conventional products. They are available in a wide range of viscosities, and are formulated for use in many applications:

- Hydraulic systems
- Compressors
- Vacuum pumps
- Gearboxes
- Chains
- Extensive variety of machines and components.







Longer Service Life

The superior performance of Molykote industrial lubricants is due to a proprietary additives package that significantly reduces oxidation rates. Oxidation, which is a result of lubricant exposure to elevated pressures and temperatures, can cause premature lubricant breakdowns. The "engineered" base chemistry of Molykote fluids makes them inherently more resistant to oxidation and emulsion than competitive products.

Our synthetic lubricants' resistance to oxidation and other contaminants leads to several benefits:

- Longer service life
- More efficient lubrication
- Less formation of undesirable by-products in the lubricant.

Our lubricants also meet the extreme temperature requirements of just about all your applications, with products formulated for extreme cold (-200°C or -328°F) as well as products for extreme heat (1400°C or 2550°F). And our oils last longer because they maintain extremely low water content throughout their useful life.

Reduce your Maintenance Costs

Molykote brand products can help you realize the full value of your maintenance and repair investments. We can provide a precise combination of products and/or services that you need to reduce overall maintenance costs, extend equipment life and simplify your purchasing process.

Expect no less when you specify Molykote as your preferred supplier for your lubrication products and services.

Customer Service and Technical Assistance

You get reliable customer service and expert technical assistance from Dow Corning.

Dow Corning's manufacturing controls and commitment to quality result in products that yield the same performance properties, minimizing production upsets caused by variations in product quality.

MACHINE ELEMENTS	TYPICAL APPLICATIONS	RECOMMENDED PRODUCTS
Rolling Element Bearings		
	General Purpose	BR2 Plus, Longterm 2 Plus, G-4700
	High Loads (> 3000 N Weld Load)	BR2 Plus, BG-20, 1292, HP-870
	High Temperature (> 150°C)	BG-20, 44, G-4700
	High Speed (> 250,000 Dn)	BG-20, BR2 Plus, 44, HP-870
	Water Wash-Out	Longterm 2 Plus, G-0102, G-4500,
	Chemical and Solvent Resistance	3451, HP-870, 1292
	Low Speed, Water Wash-Out	1122, P-40
Storage Protection	Corrosion Protection/ Dry Film	Metal Protector Plus
Gears		
Running-In	Running-In Lubrication	G-n Plus, G-Rapid Plus
Operation		
Open Gears	General Purpose	1122, 165 LT, G-67
	Corrosion Resistance	1122, Longterm 00
	High Load (> 3000 N Weld Load)	Longterm 00, 165 LT
Closed Gears	Oil Bath or Drip Lubrication	L-0122, L-21XX
	Tacky, Semi-Fluid Grease	Longterm 00
	Fretting/ Dry Film	D-321 R, 7409, D-10
	Shock or Vibration	165 LT, G-4700
Gear Boxes	Noise Reduction, Extreme Loads (Dispersion)	M-55 Plus
Storage Protection	Corrosion Protection/ Dry Film	Metal Protector Plus

MACHINE ELEMENTS	TYPICAL APPLICATIONS	RECOMMENDED PRODUCTS
Threaded Connections	THE SECTIONS	NECOMMENDED I NODOCIO
Pre-Assembly	General Purpose	P-1600, P-74, G-Rapid Plus
	White Paste	D, DX, P-1900
	Consistant Assembly Torque	1000 Paste
	Metal Free Paste	P-74, P-40
	Ultra-Pure, Avoidance Of Stress Cracking	P-37
	oraca ransy moralines on suress cracking	. 5
Disassembly	Rust Loosening	Multigliss
Storage Protection	Corrosion Protection/ Dry Film	Metal Protector Plus
Chains		
Greased Chains	High Speeds, Water Wash-Out	1122, P-40, MKL-N
Dry Lubrication	Longterm Lubrication, Dusty Environment	D-321 R
Oiled Chains	High Temps (> 175°C)	M-30, S-15XX, CO 220
	Extreme Loads/ High MoS2 Content	M-30
	Penetrates with MoS2	MKL-N
	Tacky Synthetic Blend	L-1428
	Tacky Synthetic, Low Temps (< -40°C)	L-1468FG
Storage Protection	Corrosion Protection/ Dry Film	Metal Protector Plus
Valves, Packings, Seals, O-Rings		
	General Purpose	111 Compound, 55 O-Ring,
	Extremely Low Temps (< -40°C)	55 O-Ring, HP-300
	Extremely High Temps (> 250°C)	HP-300, HP-870
	Chemical and Solvent Resistant	3452, HP-870, 6169
	Oil Lubrication Of Mechanical Shaft Seal	L-0268, L-1510, L-1568
	Valve Sealing	111 Compound
	Valve Shaft Lubrication	D-321 R
Plain Bearings, Bushings, Sleeves		
Running-In	Running-In Lubricant	G-n Plus, G-Rapid Plus,
-	White Running-In Lubricant	D Paste
	Dusty Environment	D-321 R
Operation		
	General Purpose	BR2 Plus, Longterm 2 Plus, G-4700
	High Load (> 3000 N Weld Load)	G-4700, BR2 Plus, 3451, HP-870
	High Speed (> 250000 Dn)	HP-870, BG-20, BG-555, BR2 Plus
	Chemical and Solvent Resistant	3451, 1292, HP-300, HP-870
	Vacuum Environment	HP-300, High Vaccum Grease
	Dusty Environment	D 321 R
	Oil Resistance/ Dry Film	7409
Storage Protection	Corrosion Protection/ Dry Film	Metal Protector Plus
<u> </u>	·	
Air Compressors		
Bearing Grease	General Purpose	BR2 Plus, Longterm 2 Plus, G-4700
	High Speed	BG-20, BG-555
	Chemical and Solvent Resistance	3451, HP-300, HP-870
Oil Lubrication	Mineral Oil	Non
	PAO	L-1232, L-1246
	Chemically Resistant, HCL, Methyl Chloride Exposure	L-0268
	MO / DE Blend	L-4611
	Synthetic, Chemically Resistant, High Temps	L-1568, L-1510
Cleaning	Hydrocarbon Deposits	L-4611
Vacuum Pumps		
Bearing Grease	See Air Compressors	See Air Compressors
Oil Lubrication	Mineral Oil	L-0610
	MO / PAO Blend	L-1668FG
	Chemically Resistant, HCL, Methyl Chloride Exposure	L-0268
Ammonia Refrigeration Compressors		

MACHINE ELEMENTS	TYPICAL APPLICATIONS	RECOMMENDED PRODUCTS
Multi-Purpose Oils	THICAE AITEICATIONS	RECOMMENDED NODGETS
Oil Lubrication	Air Line Lubrication, General Purpose, Hydraulic	L-0532FG
On Eddinedion	General Purpose including Hydraulic	L-0510
	deneral rurpose including riyuradiic	E-0310
Diffusion Pump Fluids		
Operation	Chemically Resistant, High Vacuum, Low Vapor Pressures	702, 704, 705
Орегилоп	chemically resistant, riight vacadin, 2000 vapor rressures	102, 104, 103
Hydraulic Systems		
Operation	General Purpose Seal Lube	111 Compound
Орегиноп	Chemical, Solvent Resistant Seal Lube	3452
Oil Lubrication	Mineral Oil Hydraulic Fluids	L-0532FG, L-0510
On Eubrication	PAO / MO Blend Hydraulic Fluids	L-1346FG, L-1368
	PAO / IVIO BIENU NYURAUNC PIUIUS	L-1340FG, L-1300
Power Screw Drives		
Tower Sciew Drives	General Purpose	BR2 Plus, Multilub, G-4500
	High Speeds	BG-20, BG-555
	Wide Temperature Range	33 Grease
	Dusty Environments, High Load, Low Speed	D-321 R
	Chemical and Solvent Resistant	3451, HP-300, HP-870
St But at t	Vacuum Environment	HP-300, High Vacuum Grease
Storage Protection	Corrosion Protection/ Dry Film	Metal Protector Plus
Clides Cuides Trade		
Slides, Guides, Tracks		0 0 0 0 0 0 0 0
Running-In	Running-In Lubricantion	G-n Plus, G-Rapid Plus
Operation		
	General Purpose	BR2 Plus, Longterm 2 Plus, G-4500
	High Loads (> 3000 N Weld Load)	BR2 Plus, G-4700, 3451, HP-870
	High Temperature (> 150°C)	G-4700, P-40
	Extremely Low Temp (< -40°C)	33 Grease, G-4501, EM-30L
	Stick-Slip	BR2 Plus, G-n Paste, DX Paste
	Dusty Environments	D 321 R
	Non-Staining	Metalform
Shaft and Hub Connections		
Running-In	Extreme Pressure Paste	G-n Plus, G-Rapid Plus
	Dry Film Lubricant	D-321 R
Operation		
	General Purpose Grease	BR2 Plus
	Fretting Corrosion	DX Paste, P-40
	Extreme Pressure, Water Wash-Out	Longterm 2 Plus
Storage	Corrosion Protection/ Dry Film	Metal Protector Plus
Couplings		
	General Purpose	BR2 Plus, G-4700
	Extreme Pressure, Water Wash-Out	Longterm 2 Plus
	Low Temperature (< -30°C)	G 4700
Wire Ropes		
Grease Lubrication	General Purpose	BR2 Plus, 1122
	Corrosion Protection	Longterm 00
		-
General Purpose Rust Loosener		
	Rust Loosener	Multigliss, Supergliss
Corrosion Protection		
	General Purpose, Welded Surface	L-0500
	·	
Storage Protection		
	Corrosion Protection/ Dry Film	Metal Protector Plus
Sealant Application		
······································	Multi Purpose	Silicone AP, 7091
	Junction Boxes	732, 733
	High Temperature	736 O3-1566
	High Temperature Sealing of Flanges on Pipes / Pipelines	736, Q3-1566 730

Want to learn more?

To find out more about the full spectrum of solutions from Dow Corning, explore our websites at www.molykote.com or www.dowcorning.com. You will find additional information and an easy link to contact us.

Your Global Connection

The Americas

World Headquarters (United States)

TEL: + 1 989 496 6000 **Technical Information Center**

TEL: + 1 800 248 2481

Dow Corning do Brasil Ltda. TEL: + 55 11 3759 4300

Asia Headquarters (Japan) TEL: + 81 3 3287 8300 FAX: +81 3 3287 1088

TEL: + 86 21 2306 5500 FAX: +86 21 6351 2600 **Technical Information Center** TEL: + 86 21 3774 7110

TEL: + 91 22 6694 6868 FAX: + 91 22 6694 6848

TEL: + 82 2 551 7600 FAX: + 82 2 551 6400

Singapore

TEL: + 65 6253 6611 FAX: + 65 6253 6070

TEL: + 66 2634 7078 FAX: + 66 2634 7076 Australia & New Zealand Dow Corning Australia Pty Ltd.

TEL: + 61 1300 360 732

European Headquarters (Belgium) Dow Corning S.A.

TEL: + 32 64 88 80 00

Germany

Dow Corning GmbH **Technical Information Center**

TEL: + 49 611 237 964

France

Dow Corning France S.A.

Sales Office

TEL: + 33 47 284 1360

Italy

Dow Corning S.p.A. Sales Office TEL: + 39 0298 8321

Dow Corning Iberica

Sales Office

TEL: + 34 93 363 6900 **United Kingdom**

Customer Service Center Northern Europe

Sales Office

TEL: + 44 1676 528 000

Molykote® Energy Savings Calculator—Reduce Costs and **Emissions**

Dow Corning is pleased to offer an easy-to-use, online tool that helps plant managers and industrial maintenance engineers better manage rising energy prices and carbon dioxide emissions by calculating the energy and cost savings available through lubrication best practices.

To increase reliability, lower emissions and reduce costs of your plant operations, proper lubrication is more important than ever. Molykote® lubricants from Dow Corning reduce friction to lower the amount of energy needed to operate equipment—helping the environment and saving you money.

Calculate your potential energy and CO, emissions reductions at www.molykote.com.

LIMITED 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. Suggestions of use shall not be taken as inducements to infringe any patent.

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. DOW CORNING DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Dow Corning and Molykote are registered trademarks of Dow Corning Corporation.

We help you invent the future. is a trademark of Dow Corning Corporation. ©2008 Dow Corning Corporation. All rights reserved. form number 80-3374-01

> We help you invent the future.™

