



## Molylube® SF 100 Semi-Synthetic Open Gear Lubricant

### PRODUCT DESCRIPTION

Bel-Ray® Molylube® SF 100 Semi-Synthetic Open Gear Lubricant is an extremely versatile, multi-service and environmentally friendly lubricant. Molylube SF 100 Semi-Synthetic Open Gear Lubricant has an aluminum complex thickener fortified with Molylube solids in a semi-synthetic base oil. The product also provides excellent Extreme Pressure, anti-wear, and rust and corrosion protection under the tough conditions associated with mining and heavy industry.

### PRODUCT FEATURES and BENEFITS

- Multi-service capabilities to provide superior protection for a wide range of shovel and dragline applications from open gears to some walk mechanisms
- Enhanced adhesion to metal surfaces provides superior lubricant retention, reducing consumption and extending lubrication intervals while providing protection from missed re-lubrication cycles.
- Enhanced anti-wear properties extend component life, greatly reducing operating costs.
- Available in multiple viscosities, these formulations deliver outstanding mobility and pumpability, ensuring reliable lubrication of components across extreme temperatures from the Arctic to the Sahara.

### APPLICATIONS

In mining applications, Molylube SF 100 Semi-Synthetic Open Gear Lubricant is recommended for draglines and shovels to lubricate open gears, bushings, plain bearings, rollers and rails, dipper sticks and handles, and certain propel mechanisms. For mills and kilns, it can be applied to open gears. The general industrial applications include open gears, pins and bushings, and other sliding surfaces. The heavy-grade variant serves effectively as a priming lubricant for open gears and sliding surfaces.

#### DISTRIBUTED BY:

Calumet Branded Products, LLC  
1060 N Capitol Ave  
Suite 6-401  
Indianapolis, IN 46204  
Technical Services: 317-328-5660  
www.belray.com

To the best of our knowledge, the information contained herein is accurate, but is given without warranty or guarantee. We assume no liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of the suitability of any information or material for the use contemplated, the name in use and whether there is any infringement of patents is the sole responsibility of the user.

All trademarks are owned by one or more affiliates within the Calumet, Inc. organization, unless otherwise specified.

© 2026 Calumet, Inc.

4/23/2026

## PRODUCT DATA

Property	Test Method	Typical Properties					
		Sub-Arctic	Arctic	Light	Medium	Heavy	Ultra-Heavy
Thickener Type		Aluminum Complex	Aluminum Complex	Aluminum Complex	Aluminum Complex	Aluminum Complex	Aluminum Complex
Base Fluid Viscosity @ 40°C (cSt)	ASTM D445	707	707	1,860	1,860	3,675	3,675
Base Fluid Viscosity @ 100°C (cSt)	ASTM D445	40	40	77.2	77.2	145	145
Base Fluid Viscosity Index	ASTM D2270	95	95	99	99	124	124
Apparent Viscosity @ 25°C, (cP)	ASTM D2196	11,000	20,000	18,000	Solvent Free	Solvent Free	11,500
Unworked Penetration (mm/10) (Pre-dilution)	ASTM D217	370	370	370	370	370	420
Copper Corrosion, 3 h @ 100°C (Rating)	ASTM D4048	1b	1b	1b	1b	1b	1b
4-Ball EP Test, Weld Load (kgf) (Pre-dilution)	ASTM D2596	--	--	--	>800	>800	--
4-Ball EP Test, Load-Wear Index (Pre-dilution)	ASTM D2596	--	--	--	160	160	--
4-Ball EP Test, Weld Load (kgf)	ASTM D2596	>800	>800	>800	--	--	>800
4-Ball EP Test, Load-Wear Index	ASTM D2596	160	160	160	--	--	160
Corrosion Preventive Properties	ASTM D1743	Pass	Pass	Pass	Pass	Pass	Pass
Timken Retention Test, Film Life @ 43 lbs, minutes (Pre-dilution)	US Steel Film Life	>30	>30	>30	>30	>30	>30
Pumpability, Lincoln Ventmeter, from 1800 psi to 600 psi, maximum		-45°C < 30 s	-30°C < 30 s	-28°C < 30 s	-7°C < 30 s	-5°C < 30 s	-15°C < 30 s
Flash Point w/ solvent, °C (°F)	ASTM D92	154 (309)	154 (309)	154 (309)	--	--	154 (309)
Flash Point w/o solvent, °C (°F)	ASTM D92	262 (504)	262 (504)	262 (504)	262 (504)	264 (507)	264 (507)
Useful Temperature Range, °C (°F)		-45 to 10 (-49 to 50)	-35 to 40 (-31 to 104)	-28 to 50 (-18 to 122)	-7 to 50 (19 to 122)	-5 to 50 (23 to 122)	-15 to 50 (14 to 122)
Color		Black	Black	Black	Black	Black	Black

## HEALTH and SAFETY

Health and safety recommendations for products can be found on the Safety Data Sheet (SDS) at [www.belray.com](http://www.belray.com)