



PRODUCT DATA SHEET



MOLYLUBE® EXTREME PRESSURE HIGH VISCOSITY GREASE

Molylube Extreme Pressure High Viscosity Grease, commonly known as Molylube 87M EP Grease, is an aluminum complex, multi-purpose grease formulated to extend the service life of machine components in the severe duty applications encountered in mining, quarrying, construction, cement and other heavy industries where its high base oil viscosity ensures maximum lubricating film thickness. **Molylube Extreme Pressure High Viscosity Grease** is especially effective when used to lubricate the suspension components of heavy-duty equipment such as excavators, dozers, loaders and haul trucks. The rust and corrosion inhibitors utilized in of **Molylube Extreme Pressure High Viscosity Grease** provide full protection of equipment surfaces. Grades 680-1 and 1000-1 are Komatsu approved.

Applications

- ◆ Centralized lubrication systems of heavy-duty mobile equipment and excavators
- ◆ Heavily loaded anti-friction bearings and plain bearings
- ◆ Rolling mill bearings
- ◆ Bucket pins, sliding surfaces and grease lubricated track pins

Features and Benefits

- | | |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| ◆ Extreme Pressure and anti-wear properties | Maximizes component useful life helping to reduce replacement part costs and lost production time. |
| ◆ Impact resistant | High base oil viscosity resists “squeeze out” during normal and severe operation for improved product retention. |
| ◆ Extended lubrication cycles | Primary savings are derived from extended lubrication cycles with additional savings resulting from reduced labor and downtime. |

General Description

Molylube Extreme Pressure High Viscosity Grease is a heavy-duty, all-weather aluminum complex grease designed for severe service associated with the heavy industry. The innate benefits of the aluminum complex thickener include exceptional thermal and mechanical stability and resistance to water washout. **Molylube Extreme Pressure High Viscosity Grease** utilizes a proprietary chemical system to protect machine components against friction and wear under heavy load conditions. Lubricating solids, rust and corrosion inhibitors further enhance the product’s performance capabilities.

Product No. 301186, 301678, 300989, 301037, 301679, 301680, 301681, 301682, 301188

MOLYLUBE[®]
EXTREME PRESSURE HIGH VISCOSITY GREASE
TYPICAL PROPERTIES

<u>Product No.</u>	<u>301186</u>	<u>301678</u>	<u>300989</u>
<u>Old Product No.</u>	<u>20242</u>	<u>20244</u>	<u>20246</u>
Bel-Ray Name Grade	460-0	680-0	1000-0
NLGI Grade	0	0	0
Penetration, worked (60 strokes), ASTM D217, mm/10	375	375	375
Thickener Type	Aluminum Complex	Aluminum Complex	Aluminum Complex
Viscosity (Base Fluid), ASTM D445			
@ 40°C, cSt	465	685	1025
@ 100°C, cSt	29.5	38.0	49.0
Dropping Point, ASTM D2265, °C (°F)	>240 (464)	>240 (464)	>240 (464)
Copper Strip Corrosion, ASTM D4048 24 hrs @ 100°C, rating	1b	1b	1b
Reactivity with Water, DIN 51 807 Part 1	1	1	1
Water Washout, ASTM D1264 @ 79°C (175°F), loss, weight %	--	--	--
Low Temperature Torque Test, ASTM D1478			
Starting Torque, @ -4°C (25°F), mNm	--	--	--
Running Torque, @ -4°C (25°F), mNm	--	--	--
4-Ball EP Test, ASTM D2596 Weld Load, kg	800	800	800
Timken EP Test, ASTM D2509, OK Load, kg (lb)	22.7 (50)	22.7 (50)	22.7 (50)
Rust Protection, ASTM D1743, rating	Pass	Pass	Pass
EMCOR Rust Protection, ASTM D6138, rating Distilled Water	1,1	1,1	1,1
Color	Gray	Gray	Gray

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TYPICAL PROPERTIES

<u>Product No.</u>	<u>301037</u>	<u>301679</u>	<u>301680</u>
<u>Old Product No.</u>	<u>20252</u>	<u>20254</u>	<u>20256</u>
Bel-Ray Name Grade	460-1	680-1	1000-1
NLGI Grade	1	1	1
Penetration, worked (60 strokes), ASTM D217, mm/10	325	325	325
Thickener Type	Aluminum Complex	Aluminum Complex	Aluminum Complex
Viscosity (Base Fluid), ASTM D445			
@ 40°C, cSt	465	685	1025
@ 100°C, cSt	29.5	38.0	49.0
Dropping Point, ASTM D2265, °C (°F)	>260 (500)	>260 (500)	>260 (500)
Copper Strip Corrosion, ASTM D4048 24 hrs @ 100°C, rating	1b	1b	1b
Reactivity with Water, DIN 51 807 Part 1	1	1	1
Water Washout, ASTM D1264 @ 79°C (175°F), loss, weight %	6.5	5.5	4.7
Low Temperature Torque Test, ASTM D1478			
Starting Torque, @ -4°C (25°F), mNm	45.3	79.7	85.4
Running Torque, @ -4°C (25°F), mNm	17.9	11.5	44.6
4-Ball EP Test, ASTM D2596 Weld Load, kg	800	800	800
Timken EP Test, ASTM D2509, OK Load, kg (lb)	22.7 (50)	22.7 (50)	22.7 (50)
Rust Protection, ASTM D1743, rating	Pass	Pass	Pass
EMCOR Rust Protection, ASTM D6138, rating Distilled Water	1,1	1,1	1,1
Color	Gray	Gray	Gray

MOLYLUBE®
EXTREME PRESSURE HIGH VISCOSITY GREASE
TYPICAL PROPERTIES

<u>Product No.</u>	<u>301681</u>	<u>301682</u>	<u>301188</u>
<u>Old Product No.</u>	<u>20262</u>	<u>20264</u>	<u>20266</u>
Bel-Ray Name Grade	460-2	680-2	1000-2
NLGI Grade	2	2	2
Penetration, worked (60 strokes), ASTM D217, mm/10	275	275	275
Thickener Type	Aluminum Complex	Aluminum Complex	Aluminum Complex
Viscosity (Base Fluid), ASTM D445			
@ 40°C, cSt	465	685	1025
@ 100°C, cSt	29.5	38.0	49.0
Dropping Point, ASTM D2265, °C (°F)	>260 (500)	>260 (500)	>260 (500)
Copper Strip Corrosion, ASTM D4048			
24 hrs @ 100°C, rating	1b	1b	1b
Reactivity with Water, DIN 51 807 Part 1	0-1	0-1	0-1
Water Washout, ASTM D1264			
@ 79°C (175°F), loss, weight %	5.5	4.8	4.2
Low Temperature Torque Test, ASTM D1478			
Starting Torque, @ -4°C (25°F), mNm	--	--	--
Running Torque, @ -4°C (25°F), mNm	--	--	--
4-Ball EP Test, ASTM D2596			
Weld Load, kg	800	800	800
Timken EP Test, ASTM D2509, OK Load, kg (lb)	22.7 (50)	22.7 (50)	22.7 (50)
Rust Protection, ASTM D1743, rating	Pass	Pass	Pass
EMCOR Rust Protection, ASTM D6138, rating			
Distilled Water	1,1	1,1	1,1
Color	Gray	Gray	Gray