



TECHNICAL DATA

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#197 MOLY PURE SYNTHETIC GREASE

Moly Pure Synthetic Grease is a multi-purpose, extreme pressure, wide temperature range grease that is specially formulated for use in all types of heavy duty equipment that is being used under the most adverse conditions of excessive pressure, high stock loading, extreme hot or cold temperatures and moisture.

Moly Pure Synthetic Grease is compounded from the highest quality polyalphaolefin (PAO) synthetic base oils available. Blended into these polyalphaolefin base oils is a bentone base thickener and selected additives. This formulation provides Moly Pure Synthetic Grease with the following outstanding performance features:

1. A wide temperature application range of -50°F to $+500^{\circ}\text{F}$.
2. Extended bearing life, even at elevated temperatures and speeds.
3. Excellent low temperature pumpability characteristics at temperatures as low as -50°F .
4. Exceptional rust and oxidation inhibiting characteristics.
5. Excellent resistance to water washout.
6. Excellent anti-wear and extreme pressure load carrying properties.
7. Excellent mechanical and thermal stability.
8. Excellent shear stability.

Further blended into this blend of polyalphaolefin base oils, bentone thickener and selected additives is molybdenum disulfide. The molybdenum disulfide gives Moly Pure Synthetic Grease the ability to act as a "backstop" lubricant when the grease base's fluid film lubrication. This "backstop" is created by the molybdenum disulfide's natural affinity for metal surfaces. The molybdenum disulfide plates to the metal surface to form a long lasting solid lubricant film. This solid lubricant film will withstand pressures up to 500, 000 pounds per square inch, giving the metal surfaces of the bearing the protection they need during periods of high speed, high shock loads and extreme pressure.

The Moly's solid lubricant film also helps to reduce friction. This reduction in friction results in reduces wear and a reduction in contact area temperature. This results in increased working life of the grease, equipment life, less downtime and extended lubrication cycles.

Moly Pure Synthetic Grease is compatible with all types of seal materials. However, Moly Pure Synthetic Grease is not compatible with soap base greases such as aluminum complex, lithium 12-hydroxystearate, lithium, lithium complex, calcium, calcium complex soap base greases and polyurea base greases.

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TD-197 (Rev. 12/2009)

TYPICAL PROPERTIES

	00	0	1	2
NLGI Grade	00	0	1	2
Worked Penetration 77°F/25°C (ASTM D-217)	400-430	355-385	310 to 340	265 to 295
Type Thickener	Bentone	Bentone	Bentone	Bentone
Dropping Point °F/°C (ASTM D-2265)	None	None	None	None
Rust Inhibition Test (ASTM D-1743)	1,1,1	1,1,1	1,1,1	1,1,1
Oxidation Stability Test (ASTM D-942)				
PSI Loss at 100 hours	2	2	2	2
Timken EP Test (ASTM D-2509)	60	60	60	60
Four Ball EP Test (ASTM D-2596)				
Weld point, kg	250	250	315	315
Load Wear Index, kg	40	40	45	45
Four Ball EP Test (ASTM D-2266)				
Scar Diameter, mm	0.7	0.7	.68	.68
Falex Continuous Load (ASTM D-3233)				
Failure, lbs.	750	750	800	800
Lincoln Ventmenters				
Psi @ 100°F	<100	<100	150	200
Psi @ 30°F	----	----	500	575
Psi @ 0°F	----	----	675	700
Psi @ -20°F	----	----	825	850
Psi @ -40°F	400	400	950	1000
Grease Mobility @ 0°F/-18°C US Steel Method				
Flow Rate gram.sec	0.1	0.1	.2	.34
BASE OIL PROPERTIES:				
Viscosity 40°C cSt (ASTM D-445)	48 – 49.5	50 - 51.5	49 – 50.5	56.5 – 58.5
Viscosity 100°C cSt (ASTM D-445)	7.5 – 8.5	7.9 – 8.5	7.8 – 8.5	8.5 – 9.5
Viscosity Index (ASTM D-2270)	142	145	136	136
Flash Point °F/°C (ASTM D-92)	500°/260°	500°/260°	500°/260°	500°/260°
Fire Point °F/°C (ASTM D-92)	540°/282.2°	540°/282.2°	540°/282.2°	540°/282.°
Pour Point °F/°C (ASTM D-97)	-60°/-51°	-60°/-51°	-60°/-51°	-40°/-40°