SINCE 1839
Schaeffer's
SPECIALIZED LUBRICANTS

TECHNICAL DATA

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ISO 9001 CERTIFIED

274 MOLY EP SYNTHETIC PLUS GREASE

Moly EP Synthetic Plus Grease is a multipurpose, extreme pressure, wide temperature range grease. It is specially formulated for use in all types of heavy duty automotive, construction, mining, farming and industrial equipment and electric motor applications that are subjecte to excessive pressure, high shock loading, extreme temperatures, and moisture.

Moly EP Plus Grease is compounded from a unique blend of the finest select severely hydro-treated polyalphaolefin (PAO) synthetic base fluids and high viscosity index paraffin base oils available in an aluminum complex base thickener with selected extreme pressure and rust and oxidation additives. Moly EP Synthetic Plus Grease provides the following outstanding performance features:

- Excellent low temperature pumpability characteristics at temperatures as low as -45ºF (dependent upon NLGI grade used)
- A wide temperature application range of -45ºF to 350ºF.
- Excellent resistance to water washout.
- Excellent shear and mechanical stability.
- Excellent anti-wear and extreme pressure load carrying properties.
- Excellent reversibility. This property allows Moly EP Synthetic Plus Grease to have the ability to retain its grease-like consistency and remain in the bearings during periods of heat, high shock loading, extreme pressures, and severe mechanical action.
- Excellent rust and oxidation inhibiting characteristics.
- Excellent resistance to oxidation.

Moly EP Synthetic Plus Grease contains molybdenum disulfide which acts as a “backstop” lubricant when the grease base is either destroyed or wiped away due to unexpected loads, start-up or other conditions which exceed the capabilities of the grease base’s fluid film lubrication. Molybdenum disulfide has a natural affinity to plate metal surfaces and from 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 bearings the protection they need during periods of high speed, high shock loads and extreme pressure.

The Moly EP Synthetic Plus Grease’s solid lubricant film can also help reduce friction and contact area temperatures which can increase equipment life, reduce down time and extend lubricant cycyles.

Moly EP Synthetic Plus Grease has excellent adhesive properties and will not wash out, pound out, splatter or squeeze out under the heaviest load or vibrations.

Moly EP Synthetic Plus Grease #00 is pumpable to -45ºF, #0 is pumpable to - 40ºF, #1 grade is pumpable to -20ºF and #2 grade is pumpable to -10ºF.

Moly EP Synthetic Plus Grease #0 is formulated for use on corn head and other slow-speed gear cases that recommend an NLGI #0 semi-fluid grease.

Moly EP Synthetic Plus meets and exceeds the following specifications and manufacturer’s requirements: US Steel 346, 352, 355, 370 371 specifications, Caterpillar MPGM, Caterpillar’s 3% Moly Specification (NLGI 2 only), Komatsu, MIL-G-234C, Case-IH 251H, John Deere, New Holland, Ford M1693A, General Motors, Chrysler, P&H 472B, 472C and 472D, Federal Specification VV-G-632A, MIL-G-4343C, MIL-G-10924G, MIL-G-23515, MIL-G-7722,MIL-DTL-23544D DODG-24508A(Navy), JIS K2220, 51825, SKF, Fag, INA, Torrington, Timken, Rexnord Link-Belt Bearing Division, NSK, Koyo, NTN Bearing, and Roller Bearing Company of America.

TYPICAL PROPERTIES

NLGI Grade	**00**	**0**	**1**	**2**
Type Thickener	Aluminum Complex	Aluminum Complex	Aluminum Complex	Aluminum Complex
Specific Gravity 60ºF	0.8813	0.8942	0.9017	0.8958
Dropping Point ºF/ºC (ASTM D2265)	500º/260º	500º/260º	500º/260º	500º/260º
Worked Penetration, 60 strokes 77ºF/25ºC (ASTM D217)	400-430	355-385	310-340	280-295
Roll Stability Test (ASTM D1831) % Consistency Change	---	---	10	7.1
Rust Inhibition Test (ASTM D1743) Rating	1,1,1	1,1,1	1,1,1	1,1,1
Oxidation Stability (ASTM D942) Psi Loss at 100 hr.	1.5	1.5	2	2
Water Washout Test (ASTM D1264) % Loss 175ºF/79ºC	---	---	5.4	5.4
Pressure Oil Separation Test, US Steel Method Grams of Oil separation	---	---	2	1.8
Timken EP Test (ASTM D2509) Fail Load, lbs.	55	60	60	60
Four Ball EP Test (ASTM D2596) Load Wear Index (kg)	36.8	36.8	41.8	45.1
Weld Point (kg)	315	315	315	315
Four Ball Wear Test (ASTM D2266) Scar Diameter	.7 mm	.68 mm	.6 mm	.6 mm
Falex Continuous Load (ASTM D3233) Failure, lbs.	1000	1000	1500	1750
Wheel Bearing Leakage Tendency Test (ASTM D1263)				
Leakage, grams*	---	---	1	.6
Deposits*	---	---	No deposits	No deposits
Oil Separation (ASTM D1742) % Wt. of Oil Separation*	---	---	2.5	2
Evaporation Loss (ASTM D2595) % Loss 22 hr. @ 250ºF	0.5	0.5	0.25	0.25
Grease Mobility (US Steel Method) 0ºF (Flow rate in grams 75 sec.)	---	---	.24	.14
BASE OIL PROPERTIES				
Viscosity SUS 100ºF (ASTM D445)	257.3-334	293.4	528.4	800
Viscosity cSt 40ºC (ASTM D445)	50.00-65.00	56.97	101.52	152.17
Viscosity cSt 100ºC (ASTM D445)	7.5-9.5	8.23	11.75	14.83
Viscosity Index (ASTM D2270)	114	114	104	105
Flash Point ºF/ºC (ASTM D92)	471º/244º	471º/244º	493º/256º	530º/276.7º
Fire Point ºF/ºC (ASTM D92)	510º/265.56º	510º/265.56	530º/276.7º	560º/293.3º