SINCE 1839
Schaeffer's
SPECIALIZED LUBRICANTS

TECHNICAL DATA

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ISO 9001 CERTIFIED

274M2 MOLY EP SYNTHETIC PLUS GREASE

Moly EP Synthetic Plus Grease is a multipurpose, extreme pressure, wide temperature range, 5% molybdenum disulfide containing grease that is specially formulated for use in all types of heavy duty automotive, construction, mining, farming and industrial equipment that are being used under the most adverse conditions of excessive pressure, high shock loading, extreme hot and cold 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. Blended into these para-synthetic base fluids is an aluminum complex base thickener and selected extreme pressure and rust and oxidation additives. This formulation provides Moly EP Synthetic Plus Grease with the following outstanding performance features:

- Excellent Low Temperature pumpability characteristics at temperatures as low as -20ºF.
- A wide temperature application range of -20ºF 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.

Incorporated into this blend of para-synthetic base fluids, aluminum complex thickener and selected additives is Molybdenum Disulfide at a level of 5% by weight. The molybdenum disulfide provides Moly EP Synthetic Plus Grease with the ability to act 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. This “backstop” is created by the molybdenum disulfide’s natural affinity for metal surfaces. This natural affinity for metal surfaces allows the molybdenum disulfide and solid lubricant package to plate itself to these surfaces in order 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 bearings 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 reduced wear and a reduction in contact area temperature. This in turn leads to increased equipment life, less downtime and extended lubrication cycles.

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

Moly EP Synthetic Plus Grease grade is pumpable to -20ºF.

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 5% Moly Specification, 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, DIN 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	**2**
Type of Thickener	Aluminum Complex
Dropping Point ºF/ºC	500°/260°
Worked Penetration, 60 strokes 77ºF/25ºC (ASTM D217)	270 – 295
Roll Stability Test (ASTM D1831) % Consistency Change	7.1
Oxidation Stability (ASTM D942) Psi Loss @ 100 Hours	2
Rust Inhibition Test (ASTM D1743)	1,1,1
Water Washout Test (ASTM D1264) % Loss @ 175°F/79°C	5.4%
Pressure Oil Separation Test, US Steel Method Grams of Oil separation	1.8
Timken EP Test (ASTM D2596) Fail Load, lbs.	65
Four Ball EP Test (ASTM D2596) Weld Point, kg-f	500
Four Ball Wear (ASTM D2266) Scar diameter, mm	0.66
Falex Continuous Load (ASTM D3233) Failure Load, Lb-f	2,500
Wheel Bearing Leakage Tendency Test (ASTM D1263) Leakage, grams	0.6
Deposits	No Deposits
Oil Separation (ASTM D1742) % Weight Oil Separation	2
Grease Mobility (US Steel Method) 0ºF (Flow rate in grams 75 sec.)	0.14
BASE OIL PROPERTIES	
Viscosity SUS 100ºF (ASTM D445)	800
Viscosity cSt 40ºC (ASTM D445)	152.17
Viscosity cSt 100ºC (ASTM D445)	14.83
Viscosity Index (ASTM D2270)	105
Flash Point ºF/ºC (ASTM D92)	530º/277º