SINCE 1839 Schaeffer MANUFACTURING COMPANY

ISO 9002 CERTIFIED

TECHNICAL DATA

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#274 MOLY EP SYNTHETIC BLEND GREASE

Moly EP Synthetic Blend Grease is a multipurpose, extreme pressure wide temperature range grease that is specially formulated for use in all types of heavy duty automotive, construction, mining, farming and industrial equipment and electric motor applications that are being used under the most adverse conditions of excessive pressure, high shock loading, extreme hot and cold temperatures, and moisture.

Moly EP Synthetic Blend Grease is compounded from a unique blend of the finest select high viscosity index paraffin base oils and polyalphaolefin (PAO) synthetic base fluids available. Blended into this combination of paraffin base oils and PAO synthetic base fluids is an aluminum complex base thickener and selected additives. This formulation provides Moly EP Synthetic Blend Grease with the following outstanding performance features.

1. Excellent Low Temperature pumpability characteristics at temperatures as low as -50ºF.
2. A wide temperature application range of -45ºF to 350ºF.
3. Excellent resistance to water washout.
4. Excellent shear and mechanical stability.
5. Excellent antiwear and extreme pressure load carrying properties.
6. Excellent reversibility. This property allows Moly EP Synthetic Blend 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.
7. Excellent rust and oxidation inhibiting characteristics.
8. Excellent resistance to oxidation.

Incorporated into this blend of high viscosity index paraffin base stocks and aluminum complex thickener is molybdenum disulfide. The molybdenum disulfide gives Moly EP Synthetic Blend Grease 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. The “backstop” is created by itself 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 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 Blend Grease also has excellent adhesive properties. Because of these excellent adhesive properties, Moly EP Synthetic Blend Grease will not wash out, pound out, splatter or squeeze out under the heaviest load or vibrations.

Moly EP Synthetic Blend Grease #00 is pumpable to -45ºF, #0 is pumpable to - 40ºF, #1 grade is pumpable to -30ºF and #2 grade is pumpable to -20ºF.

TYPICAL PROPERTIES ON NEXT PAGE

Moly EP Synthetic Blend meets and exceeds the following specifications and manufacturer's requirements: US Steel 346, 352, 355, 370 371 specifications, Caterpillar MPGM, 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-23549C, DOD-G-24508A(Navy), DOD-G-85733(AS), JIS K2220, DIN 515825, 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
Dropping Point ºF/ºC (ASTM D-2265)	500º/260º	500º/260º	500º/260º	500º/260º
Worked Penetration, 60 strokes 77ºF/25ºC (ASTM D-217)	400-430	355-385	310-340	280-295
Roll Stability Test (ASTM D-1831) % Consistency Change	---	---	10	7.1
Rust Inhibition Test (ASTM D-1743) Rating	1,1,1	1,1,1	1,1,1	1,1,1
Oxidation Stability (ASTM D-942) Psi Loss at 100 hr.	1.5	1.5	2	2
Water Washout Test (ASTM D-1264) % 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 D-2596) Fail Load, lbs.	55	60	60	60
Four Ball EP Test (ASTM D-2596) Load Wear Index (kg)	36.8	36.8	41.8	45.1
Weld Point (kg)	315	315	315	315
Four Ball Wear Test (ASTM D-2266) Scar Diameter	.7 mm	.68 mm	.6 mm	.6 mm
Falex Continuous Load (ASTM D-3233) Failure, lbs.	1000	1000	1500	1750
Wheel Bearing Leakage Tendency Test (ASTM D-1263) Leakage, grams*	---	---	1	.6
Deposits*	---	---	No deposits	No deposits
Oil Separation (ASTM D-1742) % Wt. of Oil Separation*	---	---	2.5	2
Evaporation Loss (ASTM D-2595) % 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
Lincoln Ventmeters				
Psi @ 100ºF	---	---	175	400
Psi @ 30ºF	---	250	275	650
Psi @ 0º F	250	350	450	1175
Psi @ -10ºF	---	---	---	1450
Psi @ -20ºF	500	600	925	----
Psi @ -30ºF	---	---	---	1800
Psi @ -40ºF	1000	1200	1200	----
BASE OIL PROPERTIES				
Viscosity SUS 100ºF (ASTM D-445)	257.3-334	293.4	528.4	800
Viscosity Cst 40ºC (ASTM D-445)	50.00-65.00	56.97	101.52	152.17
Viscosity Cst 100ºC (ASTM D-445)	7.5-9.5	8.23	11.75	14.83
Viscosity Index (ASTM D-2270)	114	114	104	105
Flash Point ºF/ºC (ASTM D-92)	471º/244º	471º/244º	493º/256º	530º/276.7º
Fire Point ºF/ºC (ASTM D-92)	510º/265.56º	510º/265.56	530º/276.7º	560º/293.3º

These tests are applicable to only NLGI grades #1, #2, #3 and #4 greases.

Packaging: #274 Moly EP Synthetic Blend Grease is available in (net weights) 420 lb. drums, 120 lb. kegs, 40 lb. pails and cases of 30 tubes.