SINCE 1839
Schaeffer's
SPECIALIZED LUBRICANTS

TECHNICAL DATA

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ISO 9001 CERTIFIED

229 ULTRA RED SUPREME

Ultra Red Supreme is a para-synthetic, versatile, multipurpose extreme pressure aluminum complex base grease that is specially formulated for use in all types of heavy-duty automotive, construction, mining, farming and industrial equipment. Ultra Red Supreme protects equipment even under the most adverse conditions of excessive pressure, heat, cold, moisture and high and low speeds.

Ultra Red Supreme is compounded from a unique blend of the finest select severely hydrotreated Polyalphaolefin (PAO) synthetic base fluids and high viscosity index solvent refined, severely hydrofinished 100% paraffin base oils available. Blended into these para-synthetic base fluids is an aluminum complex base thickener, carefully selected extreme pressure, antiwear and rust and oxidation additives and unique polymer base additive system. This formulation provides Ultra Red Supreme with the following performance features.

- Excellent pumpability characteristics for use in centralized lube systems.
- Very good to excellent low temperature pumpability.
- Excellent resistance to water washout and water spray off.
- Excellent shear and mechanical stability.
- Excellent antiwear and extreme pressure load carrying properties
- Excellent reversibility. This property allows Ultra Red to retain its' grease like consistency and remain in the bearings during periods of heat, high shock loading, extreme pressure and severe mechanical action.
- Excellent resistance to bleeding.
- Excellent rust and oxidation inhibiting characteristics.
- Excellent resistance to oxidation.
- A high dropping point.
- Excellent adhesive properties in order to provide the Ultra Red Supreme with the ability to resist washout, pound out, splatter or squeeze out during periods of high loads, vibration, shock loading, extreme pressure and severe mechanical action.

Ultra Red Supreme uses an organic, Synthesized Moly which plates itself to metal surfaces of the bearings like molybdenum disulfide (MoS_2). Once plated, Synthesized Moly forms a long lasting lubricant film that further reduces friction and wear, especially during periods of high shock loads, vibration and extreme pressure. This 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 these extreme conditions.

Synthesized Moly also helps to reduce friction which results in reduced wear, reduced contact area temperatures, increased equipment life, less downtime and extended lubrication cycles.

The use of Synthesized Moly enables Ultra Red Supreme to be suitable for use in the lubrication of rolling element bearings and can be used in those rolling element bearing applications that have restrictions on the use of greases that contain molybdenum disulfide (MoS_2).

Ultra Red Supreme has excellent rust and oxidation inhibiting characteristics, water resistance, shear and mechanical stability and good mechanical and pumpability properties. Ultra Red Supreme also has superior adhesive and cohesive properties. Because of these adhesive and cohesive properties Ultra Red Supreme will not wash out, pound out, splatter or squeeze out even under the heaviest loads or vibrations.

Due to its superior cohesive and adhesive properties Ultra Red Supreme is not recommended for use in passenger car automotive wheel bearing or in electric motor bearing applications.

Ultra Red Supreme can be applied either manually or by a heavy-duty automatic lube system. Ultra Red Supreme #1 has an operating temperature of -20ºF to 350ºF. Ultra Red Supreme #2 has an operating temperature of -10ºF to 350ºF

Ultra Red Supreme 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), 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	**#1**	**#2**
Type Thickener	Aluminum Complex	Aluminum Complex
Dropping Point ºF/ºC (ASTM D-2265)	500º/260º	500º/260º
Worked Penetration 77ºF/25ºC, 60 Strokes, (ASTM D-217)	310-340	285-295
Roll Stability Test (ASTM D-1831) % Consistency Change	14.52	12.36
Rust Inhibition Test (ASTM D-1743) Rating	1,1,1	1,1,1
Oxidation Stability (ASTM D-942) PSI Loss @ 100 hrs.	2	1.5
Water Spray Off Test (ASTM D-4049)	17%	15%
Water Washout Test (ASTM D-1264) % Loss 175ºF/79ºC	6.1%	5.78%
Oil Separation (ASTM D-1742) % Wt. of Oil Separated	1	1
Pressure Oil Separation, US Steel Method Grams of Oil separation	0.8	0.7
Timken EP (ASTM D-2059) Fail Load, lbs.	65	65
Four Ball EP (ASTM D-2596) Load Wear Index (kg)	54.91	55.08
Weld Point (kg)	400	400
Four Ball Wear Test (ASTM D-2266) Scar Diameter	.6mm	.6mm
Falex EP Continuous Load (ASTM D-3233) Failure Load, lbs.	3800	4325
Evaporation Loss (ASTM D-2595) % Loss 22 hrs. @ 250ºF	0.4	0.4
Wheel Bearing Leakage Tendency (ASTM D-1263)		
Leakage, grams	0.8	0.8
Deposits	No Deposits	No deposits
Mobility @ 0ºF/-18ºC Bethlehem Steel Method L-37		
Flow Rate grams/minute	0.5	1.0
BASE OIL PROPERTIES		
Viscosity SUS @ 100ºF (ASTM D-445)	1300	1198.2
Viscosity cSt @ 40ºC (ASTM D-445)	244.96	226.17
Viscosity cSt @ 100ºC (ASTM D-445)	19.71	18.89
Viscosity Index (ASTM D-2270)	105	95
Flash Point ºF/ºC (ASTM D-92)	530º/276.7º	518º/270º