

METATRON™ 57

DESCRIPTION:

Metatron™ 57 is versatile, multipurpose, extreme pressure grease that is specially formulated for use in all types of heavy-duty automotive, construction, mining, farming and industrial equipment. **Metatron™ 57** protects equipment even under the most adverse conditions of excessive pressure, heat, cold, moisture, and high and low speeds

APPLICATIONS:

Metatron™ 57 is recommended for use in all type bearing applications, especially those bearing applications that exposed to high shock loading, extreme pressures, high water conditions and other adverse conditions. These bearing applications can be found in heavy duty automotive equipment, (over the road trucks, buses, trailers off-road trucks), farming equipment, construction equipment, mining equipment, manufacturing plants, cement plant, sand and gravel quarries and operations, steel mills and non-ferrous metal industries.

COMPOSITION AND PERFORMANCE CHARACTERISTICS

Metatron™ 57 is compounded from the finest select severely solvent refined, severely hydrofinished 100% paraffin base oils available. Blended into these paraffin base oils are an aluminum complex base thickener, carefully selected extreme pressure, anti-wear and rust and oxidation inhibiting additives. This formulation provides the **Metatron™ 57** with the following performance characteristics:

1. Excellent pumpability characteristics for use in centralized lubrication systems
2. Very good to excellent low temperature pumpability
3. Excellent resistance to water washout and water spray-off
4. Excellent shear and mechanical stability
5. Excellent anti-wear and extreme pressure load carrying properties
6. Excellent reversibility. This property allow **Metatron™ 57** to retain its grease like consistency and remain in the bearing during periods of high heat, high shock loading, extreme pressure and severe mechanical action.
7. Excellent resistance to bleeding of the base oils
8. Excellent rust and oxidation inhibiting characteristics
9. Excellent resistance to oxidation
10. A high dropping point (260°C)

11. Excellent adhesive properties in order to provide **Metatron™ 57** with the ability to resist wash out, pound out, splatter or squeeze out during periods of high loads, vibration, shock loading, extreme pressure and severe mechanical action.

SUPERIOR EXTREME PRESSURE PROTECTION AND “DOUBLE BACKSTOP” LUBRICATION WITH MOLY

Further blended into the **Metatron™ 57** are Micro Moly™ (a synthesized type of moly) and a proprietary solid lubricant. The Micro Moly™ and the proprietary solid lubricant acting in combination with each other plate themselves to the metal surfaces of the bearings. Once plated to the metal surfaces of the bearings the Micro Moly™ and the proprietary solid lubricant form a long lasting solid lubricant film that is capable of withstanding pressures up to 500,000 pounds per square inch, thus giving the metal surfaces the protection they need during periods of high speed, high shock loads and extreme pressure.

This solid lubricant film also helps to reduce friction and act a “backstop” lubricant if the **Metatron™ 57** 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.

REDUCE WEAR:

The reduction in friction and the ability to act as a “back stop” lubricant results in reduced wear and a reduction in contact area temperatures. This in turn leads to increased equipment life, less downtime and extended lubrication cycles.

OPERATING TEMPERATURE RANGE:

Metatron™ 57 can be applied manually or by heavy-duty automatic lubrication at a temperature range of -23° to 177°C (-10° to 350°F).

TYPICAL PROPERTIES:**NLGI Grade**

	1	2
Type of Thickener	Aluminum Complex	Aluminum Complex
Worked Penetration 60 Strokes ASTM D-217	310-340	265-295
Roll Stability (ASTM D-1831)		
% Change in consistency	14.52	12.36
Four Ball EP Test (ASTM D-2596)		
Weld Point, kg.	400	400
Load Wear index, kg.	54.91	55.08
Four Ball Wear Test (ASTM D-2266) (40kg, 1200rpm, 1hr, 75°C)		
Scar diameter, mm/	0.8	0.7
Timken E.P. Test (ASTM D-2509)		
OK Load, lbs.	65	65
Falex EP Continuous Load (ASTM D-3233 Procedure A)		
Failure Load, lbs	3800	4325
Oxidation Stability (ASTM D-942)		
Psi loss @ 100 hours	2	1.5
Rust Inhibition Test (ASTM D-1743)	1,1,1	1,1,1
Water Washout Characteristics (ASTM D-1264)		
% Loss @79°C	6.1%	5.78%
Water Spray Off Test (ASTM D-4049)		
% Loss	17%	15%
Evaporation Loss @ 121°C, 22hours (ASTM D-2595)	0.4%	0.4 %
Copper Strip Corrosion Test (ASTM D-4048)	1A	1A
Oil Separation (ASTM D-1742)		
% Wt. of oil separated	1%	1%
Pressure Oil Separation, U.S. Steel Method		
Grams of Oil Separated	0.8	0.7
Lincoln Ventmeter		
PSI @ 38°C	190	250
PSI @ -1°C	500	575
PSI @ -18°C	775	850
PSI @ -23°C	1000	1600
PSI @ -29°C	1350	Too stiff to pump

BASE Oil Properties

Viscosity 40°C, cSt (ASTM D-445)	244.96	226.17
Viscosity 100°C, cSt (ASTM D-445)	19.71	18.89
Viscosity Index (ASTM D-2270)	105	95
Flash Point °C (°F) (ASTM D-92)	277° (530°)	270° (518°)