

MIN-LUBE™

High Performance Grease

MIN-LUBE grease is designed specifically for lubrication in severe environments as well as food and pharmaceutical related industries. It is a ISO100 mineral oil base thickened with a proprietary calcium sulfonate complex and a carefully selected additive package focused on thermal, oxidative, and mechanical stability. It contains Micronox® to provide antimicrobial protection for this product which is groundbreaking technology that prevents degradation of the lubricant.

Product Features:

- Extreme Pressure and Wear Protection
- Working Temperature range: -15 °F to 550 °F
- Highly resistant to water, steam, acid, and many chemicals
- Excellent Thermal and Oxidative Stability
- NSF Nonfood Compound Category Code: H1
- Does not contain metals, PTFE or silicone
- High load bearing properties
- Excellent Corrosion Protection
- Does not soften or run out
- Ideal for mold components
- Ideal for bearings, bushings, cams, cables, chains, conveyors, gears, etc.
- Compatible with lithium type greases

Customer Benefits:

- Recommended for the food and pharmaceutical industries in applications of chance of incidental food contact.
- Provides superior load and wear protection to bearings and long life to machinery.
- It works effectively for extended periods under water ingress in food processing and other industries with excellent rust protection.
- Designed to work effectively in the temperature range of -15 °F to 550 °F
- Anti-Microbial ingredients protect the grease from degradation.

Suggested Applications:

- Food and Pharmaceutical
- Plastics Molding
- Automotive
- Marine

Packaging:

- 16-ounce net weight Jar
- 16-ounce net weight Cartridge Sold in a case of 12
- 5 gallon (35 lb.) Pail
- 55 gallon (400 lb.) Drum

Product Name/Number	MIN-LUBE™/ NML	Test Method
	Result	
Color/ Texture	Off-White/ Smooth	
NSF Registration No. / Category Code	166198 / H1	
Soap Type	Calcium Sulfonate Complex	
NLGI Grade	2	
Penetration, Unworked	265-295	ASTM D 217
Penetration, Worked 100,000 strokes	265-295	ASTM D 217
Roll Stability, % Change	3.1	ASTM D 1831
Dropping Point, °F (°C), min	600 (316)	ASTM D 2265
Water Washout@ 175°F (79.4°C), % loss	0.5	ASTM D 1264
Four-Ball Wear, mm	0.38	ASTM D 2266
Timken OK Load, lbs.	60	ASTM D 2509
<u>4-Ball</u> Weld point, kgf	500	ASTM D 2596
4-Ball EP Load Wear Index, kgf	62	ASTM D 2596
Wheel Bearing Life Test, hours	180	ASTM D 3527
Grease Oxidation, psi loss, 1000 hrs	9.0	ASTM D 942
Rust Test	Pass	ASTM D 1743
Oil Separation Test, %	Nil	ASTM D 1742
Salt Fog Corrosion (hrs to failure)	>300	ASTM B 117
Base Fluid Viscosity Index	92	ASTM D 2270
Base Fluid Viscosity @ 40°C, cSt	95	ASTM D 445
Base Fluid Viscosity @ 100°C, cSt	10.5	ASTM D 445
Base Fluid Flash Point °F (°C)	482 (250)	ASTM D 92
Base Fluid Fire Point °F (°C)	572 (300)	ASTM D 92
Base Fluid Pour Point °F (°C)	+10 (-12)	ASTM D 97

Outstanding Mechanical Stability - Shows little change in Cone Penetration (ASTM D 217) or consistency after 100,000 strokes. There is no evidence of shear breakdown in the Roll Stability Test (ASTM D 1831), even in an extended high temperature, modified version to increase the test's severity.

Excellent Extreme Pressure (EP) and Anti-wear Performance - Illustrated with Timken OK Values (ASTM D 2509) of 60 pounds or greater and 4-Ball EP (ASTM D 2596) LWI results of over 60 kgf with a weld point of 500 kgf. 4-Ball Wear (ASTM D 2266) performance is equally impressive with typical wear scar of less than 0.40 mm.

Protects Against Rust and Corrosion - Easily passes the standard Corrosion Preventive Properties Test (ASTM D 1743). A severe, Salt Fog Test (ASTM B 117) yields passing performance in excess of 300 hours, something few food grade greases of any other technology can achieve.

Excellent Water Resistance. Exceptional Water resistance is shown in Water Washout Test ASTM D 1264, exhibiting a 0.5% loss at 175F