

HALO-GUARD FG GREASES

APPLICATION

JAX Halo-Guard FG is a revolutionary food-grade grease manufactured with an advanced, proprietary calcium sulfonate complex thickener. This newly enhanced thickener technology provides exceptional mechanical stability, very high load-carrying ability and remarkable rust and corrosion control. In addition, JAX Halo-Guard FG has excellent water resistance and outstanding high-temperature performance characteristics. This technology is combined with a new high viscosity, partial synthetic food-grade base fluid to make JAX Halo-Guard FG a true high-performance, food-grade grease for heavily-loaded applications.

The outstanding performance characteristics of JAX Halo-Guard FG can benefit numerous food- and beverage-plant applications. It is primarily formulated for highly loaded gear sets and bearings, and all food- or beverage-equipment subject to water and corrosive washdown. As a 'Heavy-Duty' food-grade grease, JAX Halo-Guard FG can extend food-grade integrity to shop and plant equipment including pellet mills, fork trucks, conveyors, material handling equipment, presses, grain presses and packaging machines.

PERFORMANCE

The mechanical stability of JAX Halo-Guard FG is outstanding. Worked stability testing 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. In addition, extensive grease studies using mixtures of popular food-grade thickener technology have shown JAX Halo-Guard FG possesses very good compatibility with the vast majority of the most popular food-grade greases on the market.

JAX Halo-Guard FG provides unsurpassed E.P. and antiwear performance characteristics. This is illustrated with Timken OK Values (D 2509) of 60 pounds or greater, and 4 Ball EP (D 2596) LWI results of over 60 kgf with a weld point of 500 kgf. 4 Ball Wear (D 2266) performance is equally impressive with typical wear scars of less than 0.40 mm.

Rust and corrosion resistance is a particular bright spot in the performance of JAX Halo-Guard FG. It easily passes the standard Corrosion Preventive Properties Test (D 1743). A severe, Salt Fog Test (ASTM B 117) yields passing performance in excess of 300 hours.

The thermal and oxidative stability of JAX Halo-Guard FG means that excellent performance in most high-temperature applications can be achieved without another specialized grease. A dropping point of 572°F (300°C) means that Halo-Guard FG is the highest temperature-capable, heavy duty, food-grade grease on the market. In addition, sulfonate greases return to their original grease structure when cooled after reaching temperatures approaching their drop point, unlike lithium complex or polyurea greases. High-Temperature Bearing Life Test (D 3527) yields results of 120 hours, easily exceeding the NLGI GC/LB requirements of 80 hours. Bomb Oxidation results of 9 psi drop after 1000 hours means that JAX Halo-Guard FG will outperform nearly all industrial non food-grade greases in high-temperature oxidation stability, a remarkable achievement for a food-grade, NSF H1 grease!

Water resistance is of particular importance in food-grade grease applications. Few industrial applications are subject to the severe process and sanitation water and chemical contamination inherent in modern food and beverage plants. JAX Halo-Guard FG is one of the most water-resistant food-grade greases on the market with Water Washout (D 1264) results of 3.5% weight loss.

HEAVY-DUTY FOOD GRADE GREASE SUPERSTAR

JAX Halo-Guard FG Series greases satisfy the lubricant demands in nearly any heavily loaded food plant machinery application. This makes JAX Halo-Guard FG the ideal grease for difficult, highly loaded, greased gear and bearing applications. Superior water resistance, excellent compatibility with other greases, outstanding corrosion control, and excellent antiwear and E.P. performance help simplify grease inventory and provide the ultimate in food-grade grease performance.

ADDITIONAL PROTECTION

JAX Halo-Guard FG Greases incorporate JAX new, proprietary additive technology, Micronox[®], to provide protection for the product. A first in food-grade lubricants, JAX Micronox[®] has proven especially effective in protecting JAX Halo-Guard FG Greases over extended lubrication intervals.

Performance Features:

- Outstanding Rust & Corrosion Control
- Unsurpassed E.P. and Antiwear Properties
- Very Good Compatibility with Most Greases
- Excellent High-Temperature Oxidation Stability
- High-Temperature Performance
- Excellent Pumpability Characteristics
- Water Washout and Chemical Resistance

Performance Benefits:

- Rust Preventative Grease Performance
- Greatly Extended Life for Lubricated Parts
- Reduced Grease Incompatibility Concerns
- Greatly Extended Grease Intervals
- Eliminates Specialty High-Temp Greases
- Suitable for Automated Greasing Systems
- Protection from Process Water/Chemicals

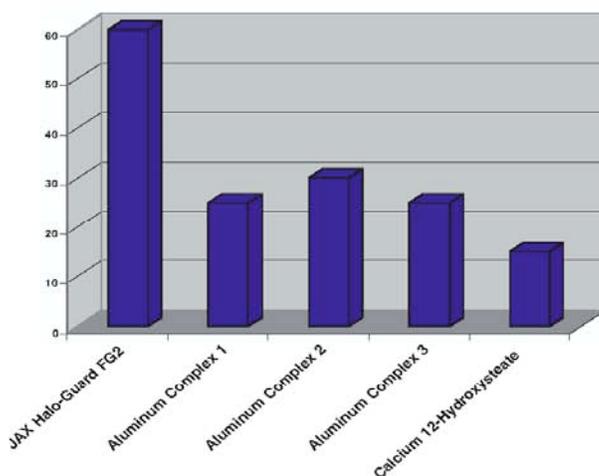


HALO-GUARD FG GREASES



Typical Property	Halo-Guard FG-2 Part # HLG02	Halo-Guard FG-LT Part # HLGLT	Halo-Guard FG-00 Part # HLG00	Method
Soap Type	Calcium Sulfonate Complex	Calcium Sulfonate Complex	Calcium Sulfonate Complex	
NLGI Grade	2	.5 - 1	00	
Penetration, Unworked	265-295	320-345	400-430	ASTM D 217
Penetration, Worked	265-295	320-345	400-430	ASTM D 217
Dropping Point, °F (°C), min.	600 (316)	500 (260)	490 (254)	ASTM D 2265
Base Fluid Viscosity @ 40°C, cSt	95	95	95	ASTM D 445
Base Fluid Viscosity @ 100°C, cSt	10.5	10.5	10.5	ASTM D 445
Base Fluid Viscosity Index	92	92	92	ASTM D 2270
Base Fluid Flash Point °F (°C)	482 (250)	482 (250)	482 (250)	ASTM D 92
Base Fluid Fire Point °F (°C)	572 (300)	572 (300)	572 (300)	ASTM D 92
Base Fluid Pour Point °F (°C)	10 (-12)	10 (-12)	10 (-12)	ASTM D 97
Grease Oxidation, psi loss, 1000 hrs	9.0	6.0	6.0	ASTM D 942
Water Washout @ 175° F (79.4°C)	0.5	1.5	4.5	ASTM D 1264
Oil Separation Test in Storage, %	Nil	0.5	1.0	ASTM D 1742
Rust Test	Pass	Pass	Pass	ASTM D 1743
Salt Fog corrosion (hrs to failure)	>300	>300	>300	ASTM B 117
Roll Stability, % Change	3.1	2.6	2.0	ASTM D 1831
Four-Ball Wear, mm	0.38	0.48	0.48	ASTM D 2266
Timken OK Load, lbs.	59.5	50	50	ASTM D 2509
4-Ball Weld, kgf	500	400	--	ASTM D 2596
Load Wear Index, kgf	62	50	--	ASTM D 2596
Wheel Bearing Life Test, hours	180	180	180	ASTM D 3527
Color	Off-White	Off-White	Off-White	
Texture	Smooth	Smooth	Smooth	
NSF Registration No. / Category Code	126100 / H1	128352 / H1	136970 / H1	

OK LOAD VALUE ASTM - D 2509



ASTM - D 2509 MEASUREMENT OF LOAD-CARRYING CAPACITY OF LUBRICATING GREASE (TIMKEN METHOD)

The test method is used widely to determine the minimum load that will rupture the lubricant film being tested between the rotating cup and the stationary block and cause abrasion; and the maximum load (OK value) at which the rotating cup will not rupture the lubricant film and cause abrasion.

