



SHELL STAMINA[®] GREASES HLS

R&O polyurea greases for industrial applications

Product Description

Shell Stamina[®] Grease HLS 1 and Shell Stamina[®] Grease HLS 2 are specially formulated R & O polyurea greases containing a synthetic base fluid, and high performance corrosion and oxidation inhibitors. These greases do not contain EP additives and are especially suitable for lubrication of ball and roller bearings such as those found in industrial applications.

Applications

Shell Stamina[®] Grease HLS 1 and Shell Stamina[®] Grease HLS 2 are suitable for the lubrication of ball and roller bearings. Shell Stamina[®] Grease HLS 1 and Shell Stamina[®] Grease HLS 2 are especially successful in high temperature service such as those found in dryer sections of paper machines.

Features

Shell Stamina[®] Grease HLS 1 and Shell Stamina[®] Grease HLS 2 are formulated using a polyurea thickener, special additives, and an ISO 460 synthetic base fluid. These greases exhibit excellent resistance to water, corrosion, and oxidation. Excellent resistance to rust and corrosion is provided, even in the presence of salt water. They offer outstanding performance over a wide range of operating temperatures and are able to withstand extended high operating temperatures. These greases will allow bearings to start and run even at low ambient temperatures and are especially suitable where frequent equipment relubrication may be difficult or impossible to achieve in service. The combination of the synthetic base fluid and the polyurea thickener reduces service hardening of the grease at prolonged elevated temperatures.

Benefits

- promotes long bearing life
- excellent high temperature properties and oxidation stability
- excellent water resistance and corrosion protection

Approvals

Shell Stamina[®] Grease HLS 1 and Shell Stamina[®] Grease HLS 2 are suitable in high temperature applications, where conventional greases tend to harden.

Product Maintenance

Maintaining a clean work environment is critical when equipment greasing is performed. Grease fittings should be wiped clean prior to grease injection to prevent contaminants from entering the equipment. Bearing housings should be maintained one-third to one-half full of grease. Over-greasing should be avoided as excessive heat buildup can result. Periodic relubrication via grease gun or centralized system should be supplemented by complete cleaning and packing with fresh grease on an appropriate schedule.

Typical Properties of Shell Stamina® Grease HLS

Product Code	Test Method	HLS 1	HLS 2
		71221	71222
NLGI Grade		1	2
Appearance		Beige, Smooth	Beige, Smooth
Polyurea Thickener, wt%		12.0	15.0
Viscosity			
@ 40° C, cSt	D 445	460	460
@ 100° C, cSt	D 445	41.5	41.5
Penetration, dmm	D 217		
Worked, 60X		325	280
Dropping Point, °F	Mettler	500+	500+
Oil Separation, wt %	D 1742	0.1	0.2
Evaporation Loss, wt%	D 972	0.2	0.4
Rust Protection, 5% SSW	D 5969	Pass	Pass
Copper Corrosion	D 4048	1b	1b
Water Washout	D 1264		
wt % loss at 175°F		1.0	1.0
Four-Ball Wear, mm	D 2266		
1 hr/54°C/1800 rpm/20 kgf		0.5	0.5
Wheel Bearing Life	D 3527		
B50, hours		300+	300+
High Temperature Bearing Test	D 3336		
B5-, hrs at 350°F		-	610
FE-9 Bearing Test	DIN 51-821		
B5-, hrs at 150°C		-	208
Guide to Usable Temperature			
Min, °F		-40	-40
Continuous Service, Max °F		350	350
Short Exposure, Max, °F		400	400

Handling & Safety Information

For information on the safe handling and use of these products, refer to their Material Safety Data Sheets at <http://www.shell-lubricants.com/msds/>. If you are a Shell Distributor, please call **1+800-468-6457** for all of your service needs. All other customers, please call **1+800-840-5737** for all of your service needs. Information is also available on the World Wide Web: <http://www.shell-lubricants.com/>.