



TECHNICAL DATA SHEET

SurStik[®] MULTISERVICE LUBRICANT

Whitmore's new SurStik[®] Multiservice Lubricant is designed with the latest technology available in nontoxic, nonheavy metal, extreme pressure/antiwear chemistry. The unique design of this revolutionary new product includes severely hydrotreated base stocks, an advanced polymerized thickener system, and Whitmore's unique Bi-Laminate[™] additive system. Whitmore's SurStik[®] is specially formulated for use on mining shovels and draglines in open cut operations to reduce the adverse effects of severe dust and dirt contamination, water, ice and snow, and changes in temperature.

Whitmore's SurStik[®] contains a high molecular weight polymer extender that resists drying, oxidation, and thermal decomposition. This is extremely helpful in areas of high dust contamination or when typical weather conditions can cause peeling and "flaking" of conventional lubricants from sticks, gears, and circle rails. Whitmore's Bi-Laminate[™] additive system provides superior load-carrying ability and high performance wear resistance in an environmentally safe package.

Whitmore's SurStik[®] has a thickener structure that inherently resists emulsification with water and has excellent mechanical and thermal stability. This thixotropic structure makes the product ideal for use in bearings and bushings. Field results indicate that the product's performance increases as operating and climatic conditions become more severe. The low temperature capabilities allow the lubricant film to maintain its adhesive characteristics and durable protection under the most demanding conditions.

BENEFITS:

- **EXTREME LOAD-CARRYING ABILITY** - protects during shock loading against seizure.
- **VERSATILE** - superior mechanical stability and shear resistance allow the product to be used in a variety of applications including open gears, sticks, circle rail and rollers, antifriction bearings, and bushings.
- **ENVIRONMENTAL COMPLIANCE** - free of heavy metals and solvents.
- **WIDE TEMPERATURE RANGE** - use SurStik[®] Summer year-round in warm climates. Use SurStik[®] Winter year-round in northern climates.

APPLICATIONS:

Whitmore's SurStik[®] is highly recommended for applications on mining shovels and draglines including open gears, sticks, circle rails and rollers, lower swing bearings, and bushings. Whitmore's SurStik[®] meets or exceeds the lubricant specification of major OEM's for a multiservice lubricant.

SurStik[®] is ideal for use on the open gears of sugar mills. Also highly recommended for kilns and driers.

ASTM #		TYPICAL CHARACTERISTICS		
		Winter Grade	Summer Grade	Extra Heavy Grade
	NLGI Grade	00 to 0	0	1 to 1.5
Gardner Method	Density, lb/gal @ 60°F (15.5°C)	8.51	8.15	8.75
	Specific Gravity, g/cc @ 60°F (15.5°C)	1.022	0.979	1.050
D-2596	Four Ball EP			
	Weld Point, kg	500	620	500
	Load Wear Index	90	100	
D-1743	Rust Test	Pass	Pass	Pass
D-4048 (Modified)	Copper Strip Corrosion for Greases	1B	1B	1B
	212°F (100°C) @ 3 hrs			
	Thickener Type	Aluminum Complex	Aluminum Complex	Aluminum Complex
OEM Standard	Low Temperature Pumpability			
	Lincoln Ventmeter @ 400 psi, °F (°C)	-30 (-35)	10 (-12)	20 (-7)
	Operating Range, °F (°C)	-30 to 50 (-35 to 10)	10 to 170 (-12 to 75)	20 to 230 (-7 to 110)

The above are average values. Minor variations which do not affect product performance are to be expected in normal manufacturing.

Note: When using SurStik[®] to lubricate open gears, house rollers and dipper sticks, the goal is to establish a protective black coating on the contact areas. Using a caulking cartridge to place a bead of SurStik[®] Extra Heavy across each gear tooth will speed the formation of this coating.

The factors that can cause delays in establishing a protective coating are:

1. Contamination from previous lubricant.
Different lubricant types are frequently incompatible. Contamination from the previous lubricant can be minimized by cleaning out the holding tank and flushing the lines with SurStik[®].
2. Contamination from bearing grease.
This can be eliminated by using SurStik[®] to lubricate the bearings.
3. Over lubrication.

For information on lubrication frequency and amount, request Technical Information Bulletin Number 1096 from the Technical Service Department.

PACKAGING

Shuttle Tanks	Drums	Kegs	Pails
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