

### GearArmor™

#### HIGH PERFORMANCE OPEN GEAR LUBRICANT

In the 1980's Whitmore pioneered the use of heavy duty paste-type open gear lubricants. We now introduce GearArmor™, an open gear lubricant that provides improved protection, with unprecedented economy of use. Preventing wear on expensive components will always be the foremost "cost reduction" and Whitmore's GearArmor™ is effective in this regard, even under the highest load. However despite world class protection, GearArmor™ can cost less to use than low cost asphaltic lubricants.

GearArmor™ plates out on metal surfaces to create a dense dark film. The high concentration of solid lubricants (graphite, MoS2 and Whitmore's SL-Tech™) provides a cushion of protection that minimizes metal-to-metal contact. Oil-soluble extreme pressure additives prevent scuffing by forming a slippery coating where asperities come in contact. The combined effect greatly exceeds the protection offering by lubricants that rely primarily on high viscosity. GearArmor™ promotes surface improvement as asperities are progressively smoothed down. The smoother surfaces minimize metal fatigue by spreading the load over a wider area. Reduced metal fatigue reduces the sub-surface cracking that leads to pitting and spalling. NOTE: Initial pitting may still occur on newly installed equipment, but will subside as the contact area improves.

GearArmor™ is reinforced by the use of synthetic polymers. These promote cohesiveness, metal adhesion and water resistance, particularly important for exposed applications such as Shovel Dipper Sticks. The protective film is not washed off by rain, and will not flake off in cold weather. The gears of wet-process Ball Mills are also subject to water-wash, especially on older machines. Adhesion is assured using GearArmor™, as well as protection from process grit in the water.

GearArmor™ is free of heavy metals and hazardous chemicals. It is an excellent replacement for any competitive gear grease as well as traditional open gear lubricants based on asphalt and solvent. Clean-up of the spent lubricant is easier. GearArmor™ is free of asphalt and does not leave a residue that hardens.

#### BENEFITS:

- ECONOMY THROUGH WEAR PROTECTION – components last longer.
- ECONOMY OF USE – competitive with low cost asphaltic lubricants on a "per hour" basis.
- SAFETY – free of hazardous materials
- CLEAN UP – no hard residue to remove

#### APPLICATIONS:

Use GearArmor™ on the Open Gears, House Rollers and Dipper Sticks of Mining Machines. It is also suitable for protection of Drum Lagging and as a Wire Rope dressing. GearArmor™ is sufficiently robust for use on the Open Gears of large Ball Mills, as well as Kilns, Calciners and Rotary Dryers.

ASTM #		TYPICAL CHARACTERISTICS
	<b>NLGI Grade</b>	0
<b>D-217</b>	<b>Cone Penetration (Worked)</b>	355-385
<b>D-2265</b>	<b>Dropping Point, °F (°C)</b>	>340 (171)
<b>D-445</b>	<b>Kinematic Viscosity (Finished Product)</b>	
	cSt @ 40°C	1,803
	cSt @ 100°C	89.65
<b>Gardner Method</b>	<b>Density, lb/gal @ 60°F (15.5°C)</b>	8.00
<b>D-2596</b>	<b>Specific Gravity, g/cc @ 60°F (15.5°C)</b>	0.96
<b>D-2266</b>	<b>Four Ball EP, Weld Point, kg</b>	800
<b>D-1743</b>	<b>Four Ball Wear, Scar Width, mm</b>	0.81
<b>D-4048</b>	<b>Rust Test</b>	Pass
<b>Modified</b>	<b>Copper Strip Corrosion for Greases</b>	1B
	212°F (100°C) @ 3 hrs	
<b>OEM Standard</b>	<b>Thickener Type</b>	Lithium
	<b>Low Temperature Pumpability</b>	
	Lincoln Ventmeter @ 400 psi, °F (°C)	30 (-1)

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

#### PACKAGING

Shuttle Tanks	Nonreturnable Totes	Drums	Pails
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#### THE WHITMORE MANUFACTURING COMPANY

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Performance Under Pressure Since 1893

LIMITED WARRANTY: The Whitmore Manufacturing Company makes the Limited Express Warranty that at the date of delivery, its goods shall be free from defects in Whitmore's materials and workmanship and shall meet the express written statements of quality, if any, made by Whitmore in connection with the sale of the goods. Other than such Limited Express Warranty, there are no express warranties made with respect to the sale of goods and all implied warranties existing under the law are expressly disclaimed and negated, particularly, Whitmore NEGATES AND DISCLAIMS THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. All other liability, either in contract or tort, including without limitation, strict liability found in Section 402A of the Restatement of Torts or otherwise, is negated and disclaimed. The sole remedy for Whitmore's breach of such Limited Express Warranty shall be a refund of the purchase price of its goods, and Whitmore shall have no responsibility for incidental or consequential damages sustained as a result of the use of the goods, whether sustained to the goods themselves or to other property. Data listed are subject to usual manufacturing variations.