



# TECHNICAL DATA SHEET

## ENVIROLUBE<sup>®</sup> XE NON-ASPHALTIC OPEN GEAR LUBRICANT

Whitmore introduces a new grade of Envirolube<sup>®</sup> that is asphalt-free. Instead of asphalt, Envirolube<sup>®</sup> XE contains a blend of high viscosity petroleum distillate, synthetic polymer and resins. The advantage over asphalt is that the spent lubricant does not harden over time, greatly simplifying cleanup.

Inadequately lubricated gears can experience scuffing under high load. Scuffing occurs when the tips of opposing asperities momentarily weld. Envirolube<sup>®</sup> XE creates an effective layer of chemical and physical protection that prevents scuffing. With this protective cushion in place, the high load on the gears causes the asperities to be pushed down, thus smoothing them with minimal removal of metal. The smoothing effect will also partially flatten out pre-existing wear damage within a few hundred hours of operation.

Envirolube<sup>®</sup> XE also prevents pitting. Pitting is caused by metal fatigue and metal fatigue is minimized when the load is borne by smoother surfaces.

### BENEFITS:

- WEAR PROTECTION, SURFACE SMOOTHING - extends gear life and reduces operating expenses. The need for special running-in compounds is eliminated.
- GEAR INSPECTION – The brown coating is visible on the gear, but is transparent enough to allow for gear inspection using a strobe light.
- EASY CLEANUP - The non-asphaltic base remains soft. It flows readily from the gear guard and is easily removed.

### APPLICATIONS:

Use on heavily loaded open gears such as kilns and ball mills. Envirolube<sup>®</sup> XE meets the specifications of major OEM's, including Falk and Metso Minerals.

Envirolube<sup>®</sup> XE is suitable for use in airless spray systems. Do not use with NBR rubber seals. Viton<sup>®</sup> is recommended.

ASTM #		TYPICAL CHARACTERISTICS		
		680	Medium	Heavy
D-445	<b>Kinematic Viscosity</b> (without diluent) cSt @ 100°C	992	960	1,100
D-445	<b>Kinematic Viscosity</b> (completed product) cSt @ 40°C	637	1,080	4,500 – 6,000
Gardner Method	<b>Density</b> , lb/gal @ 60°F (15.5°C)	7.51	7.53	7.46
D-93	<b>Specific Gravity</b> , g/cc @ 60°F (15.5°C)	0.915	0.904	0.896
D-92	<b>Flash Point</b> , Pensky Martens, °F (°C) (Finished Product)	--	--	245 (118)
D-92	<b>Flash Point</b> , Cleveland Open Cup, °F (°C)	270 (132)	295 (146)	345 (174)
D-2783	<b>Four Ball EP</b> Weld Point, kg	800	800	800
D-4172	<b>Four Ball Wear</b> Scar Width, mm	0.49	0.51	0.45
D-4048 Modified	<b>Copper Strip Corrosion</b> 212° (100°C) @ 3 hr	1B	1B	1B
	<b>Low Temperature Pumpability</b> Lincoln Ventmeter @ 400 psi, °F (°C)	-5 (-21)	5 (-15)	20 (-7)
	<b>FZG Stages Passed</b>	--	--	>12
	<b>Total Weight Loss After Stage 12</b>	--	--	26.5

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

### PACKAGING

Shuttle Tanks	Drums	Kegs	Pails
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### THE WHITMORE MANUFACTURING COMPANY

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