



Formerly Known As: **Whitmore Envirolube® XE Extreme Heavy**

- *Wear Protection*
- *Easy Clean Up*
- *TCLP-Safe*

Shell Gadus (Envirolube XE Extreme Heavy)

EXTREME-SERVICE OPEN GEAR LUBRICANT

Shell Gadus (Envirolube XE Extreme Heavy) is a robust open gear lubricant used primarily on ball mills and kilns. It is free of heavy metals and asphalt. Instead of asphalt, it 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. This greatly simplifies cleanup.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

Features

Shell Gadus (Envirolube XE Extreme Heavy) contains an additive combination that further reduces friction and wear and promotes smoothing of contact surfaces.

Scuffing wear occurs when the tips of opposing asperities momentarily weld. Shell Gadus (Envirolube XE Extreme Heavy) creates an effective layer of chemical and physical protection that prevents micro-welding and 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.

Shell Gadus (Envirolube XE Extreme Heavy) can be used in a sump system and applied by oiler wheel or sprayed intermittently onto the gears. For large, heavily loaded Ball Mill gears a lubrication frequency of 15 to 20 minutes is normal.

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.
- **TCLP-Safe** – passes the EPA Toxicity Characteristic Leaching Procedure. The spent product is not considered a “characteristic hazardous waste”.

Specifications, Approvals & Recommendations

For a full listing of equipment approvals and recommendations, please consult your local Shell & Whitmore Reliability Solutions Helpdesk.

Main Applications



Use on heavily loaded open gears such as ball mills and kilns. Both grades meet the specifications of Falk and Metso Minerals. They also meet the requirements of FL Smidth when used in intermittent spray systems. Suitable for use in sump systems and in automatic lubrication systems using either drip tubes or spray nozzles, and in airless spray systems.

Typical Physical Characteristics

Properties			Method	Shell Gadus (Envirolube XE Extreme Heavy)
Viscosity, Base Oil	@ 100°C	cSt	ASTM D445	475 - 575
Viscosity, Finished Product	@ 40°C	cSt	ASTM D445	4,500 – 3,500
Density Specific Gravity	@ 60°F (15.5°C)	lb/gal g/cc	Gardner Method	7.59 0.909
Four Ball Weld EP, Weld Point		kg	ASTM D2596	620
Four Ball Wear, Scar Width		mm	ASTM D2266	0.5

These characteristics are typical of current production. Whilst future production will conform to Shell & Whitmore Reliability Solutions specification, variations in these characteristics may occur.

Health, Safety & Environment

Health and Safety

Shell Gadus (Envirolube XE Extreme Heavy) is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

Guidance on Health and Safety is available on the appropriate Safety Data Sheet, which can be obtained from <http://www.epc.shell.com/>

Protect the Environment

Take used oil to an authorized collection point. Do not discharge into drains, soil or water.

Additional Information

Advice

Advice on applications not covered here may be obtained from your Shell & Whitmore Reliability Solutions representative.