

THE CLOSEST YOU'LL COME TO ZERO WEAR

ENVIROLUBE® XE EXTREME

Created by adding proprietary anti-wear technology proven in enclosed-gear applications, Envirolube XE Extreme takes open-gear wear protection to a revolutionary new level. A market leader in open-gear lubrication, Envirolube XE Extreme extends the life of even the most severely loaded open gears. This lubricant smooths existing wear damage, restoring a smooth operating surface and ensuring cost savings through reduced friction, temperature and load.



With more than 3 years in research and development, Envirolube XE Extreme redefines what is possible for effective lubrication of open-gear machinery. The lubricant can be used across various industries in most open-gear applications, such as grinding mills, ball mills and kilns, and meets or exceeds OEM requirements for open-gear lubricants. Envirolube XE Extreme also boasts an environmentally responsible profile that ensures ease of application and cleanup and contains no asphalt or chlorinated paraffins. There are no concerns regarding its effect on health and environment.

Envirolube creates an effective layer of chemical and physical protection that actively prevents scuffing and pitting, resulting in a radical reduction in wear. Third party testing by Clark Testing revealed phenomenal results, reducing friction and wear by 66%. For example, FZG testing (see the Table) assesses how lubricants reduce wear on gears, illustrated through weight loss. To view the gears used in FZG testing, see the Figure. With Envirolube XE Extreme, the testing loss was so small that researchers questioned whether the result was even possible. After repeated testing, we learned that the result was not only possible but also very consistent and applied to both new gears and those that suffered previous damage.

Every test for every gear showed the same results, every time. Our consistency allows you to rest easy, knowing Envirolube XE Extreme is hard at work protecting your investment.

TESTS	PRODUCT #1	PRODUCT #2	PRODUCT #3	ENVIROLUBE® XE EXTREME HEAVY
12 STAGE TEST				
Load stages passed	>12	>12	>12	>12
Weight loss after 12 stages (milligrams)	32	51	21	5
EXTENDED WEAR TEST				
Weight loss after 30 hours at load stage 10 (milligrams)	41	22	78	19.8
Specific weight loss after Extended Wear Test (milligrams/kilowatt hour)	0.1715	0.1800	0.1390	0.0100
WEIGHT LOSS AFTER 12 STAGES & EXTENDED WEAR TEST				
Total weight loss (milligrams)	32+41=73	51+22=73	21+78=99	5+19.8=24.8

Table: Results for Envirolube XE Extreme are from Clark Testing (2014), and the other products' results are from the University of Pretoria. Method: Two custom-cut gears are run under load, with the load increasing over 12 stages. The gear faces have a crosshatch pattern on the contact areas, making wear damage easier to evaluate visually. Weight loss after Stage 12 is reported. If the gears are rated "Pass" after 12 stages, a second test can be run, with the gears re-installed on the rig and run at Stage 10 for 30 hours. Weight loss from Stage 10 is then reported.

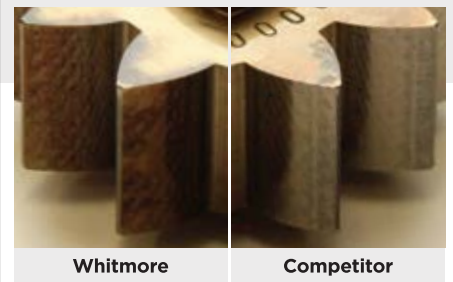


Figure: Gears showing FZG testing results. Both of the above FZG gears have been used to test lubricants that passed 12 stages and then been through the 30-hour Extended Wear Test. The gear on the left was used when testing Envirolube XE Extreme, and the original crosshatch pattern on the gear is still clearly visible. The gear on the right is more typical, as the crosshatch has been partially worn off. This test often shows scuffing, but in this case, the damage has been done by a form of wear called polishing.

- **Lower operating costs**
- **Wear protection & surface smoothing**
 - Extends gear life by reducing operating temperatures
- **Friction-reducing additive system**
- **EPA compliant**

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