



Pyroshield® Syn Hvy Open Gear Lubricant (9000)

Essroc Cement Co. – Frederick, Md.

Ball Mills

- Eliminated build-up in the roots of the gear teeth
- Reduced lubricant consumption by 50%
- Maintained cooler gear temperatures

Customer Profile

Essroc Cement Company is a cement manufacturer in Frederick, Maryland. They have been an LE customer since 1996.

Application

Essroc Cement uses ball mills to pulverize the clinker into cement powder.

Challenge

While using a black asphaltic open gear lubricant, the cement dust was mixing with the asphaltic lubricant causing a build up in the roots of the gears. This was causing the pinion gear to push away from the bull gear and resulting in excessive wear to the outer edges of the pinion gear teeth. Due to the tooth wear, pinion gear changes were common. Each pinion gear costs approximately \$20,000, plus labor and downtime.

LE Solution

The local LE lubrication consultant recommended Pyroshield® Syn Hvy Open Gear Lubricant (9000), which is an extremely heavy synthetic lubricant for ball/grinding mill applications. It contains extreme pressure additives, and is non-asphaltic.

Results

Since the conversion of all five ball mills to Pyroshield 9000, the build-up in the roots of the teeth has been eliminated. Lubricant consumption has been reduced by approximately 50 percent while maintaining cooler gear temperatures. To this date, there have been no lubricant related pinion gear failures while using Pyroshield 9000.

The maintenance engineer is very pleased with Pyroshield 9000 because of the reduced maintenance and man-hour savings.

Other Products Used

- Monolec® R & O Compressor / Turbine Oil (6404) is used in the secondary crusher. They were having a problem with overheating while using a major oil company oil. When Monolec 6404 was put in the gearbox, a 30°F temperature reduction was immediate.

Thank you to Roy Kinna, maintenance engineer, and to Harish Doshi, LE lubrication consultant (pictured), for providing the information used in this report.





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Based on actual user experience. Individual results may vary. Not intended to supersede manufacturer specifications.

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