



## Almaplex<sup>®</sup> Ultra-Syn Lubricant (1299)

*Manufacturer of Refractory Products in the U.S.*

### *Roller Kiln*

- Remained in place during kiln operation
- Remained pliable, despite extremely high temperatures
- Doubled bushing life

#### **Customer Profile**

Located in the United States, this company manufactures refractory products for kiln cars.

#### **Application**

The roller kiln – with silicon carbide tubes – is about 160 feet long. The temperature inside the mid-section of the kiln reaches very high temperatures.

#### **Challenge**

Along the outside of the kiln, there are numerous bronze bushings that carry the chain sprockets (see the picture on back). Temperatures on the rollers reaches 700-750°F (371-399°C) at the hottest point, and the temperature on the bronze bushing is about 400°F (204°C). The maintenance manager had tried at least six other high-temperature greases. “They all turned to dust, and we continued to have bushings fail and shafts break,” he said.

He was looking for a lubricant that would work in these conditions, but he did not want one containing solid thickener, such as the lubricants thickened with clay or bentone.

#### **LE Solution**

Jeff Boyles, LE lubrication consultant, recommended LE’s Almaplex Ultra-Syn Lubricant (1299), an NLGI 2 grease. Almaplex 1299 is an aluminum complex thickened grease containing an ISO 460 viscosity synthetic base fluid. It contains Almasol<sup>®</sup> and Quinplex<sup>®</sup>, LE’s exclusive additives.

Originally engineered for the steel industry, this additive combination provides excellent performance in the presence of water and most importantly superior high-temperature functionality. Other features include enhanced thermal and oxidation stability for longer service life, plus a recommended operating temperature of up to 450°F (232°C).

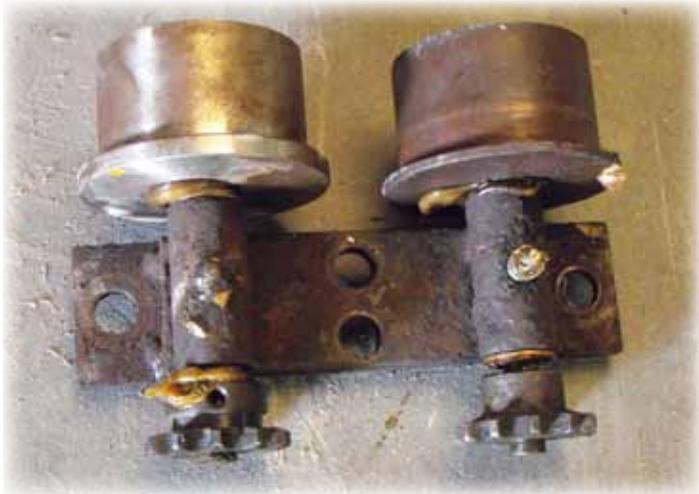
#### **Results**

Savings have not yet been calculated, but the maintenance manager reports that the Almaplex Ultra-Syn is “staying in the bushings and staying pliable.” He said it is not turning into dust as the previous lubricants had done. He was pleased with the performance and is now using the Almaplex 1299 on the entire roller kiln line.

His current procedure is lubricating the bushings once a week with two shots of grease. Since he began using Almaplex 1299 about a year ago, bushing life has been doubled.

*Thank you to Jeff Boyles, LE lubrication consultant (pictured), for providing the information used in this report.*





*Rebuilt bushing, note the gold-colored Almaplex 1299 lubricant*



*Used bushing, to be rebuilt*

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

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