

1251 ALMASOL® HIGH TEMPERATURE LUBRICANT

TRIANGLE BRICK CO., Wadesboro, NC

Tunnel Kiln • SIC 3251 Brick & Structural Clay

LE's 1251 ALMASOL® High Temperature Lubricant keeps plant operating at peak efficiency with no unplanned downtime since operations started in 2000.

CUSTOMER PROFILE

Triangle Brick Co. is one of the leading manufacturers of brick in the USA. The Wadesboro, NC facility has two plants, each producing approximately 120 million bricks a year. The first was opened in 2000 and the second in 2005. This complex is one of the most modern brick manufacturing facilities in the US. The company also has manufacturing facilities in Moncure, NC. Triangle Brick has been an LE customer since the plant was first opened in 2000 and the other location in Moncure for many years before that.



Wadesboro plant office

APPLICATION

The Tunnel kiln (manufactured by Lingl) has 99 kiln cars in the system's loop, with 12 transport bearings per car. Each kiln car cycles through the kiln every five to seven days. The total weight of the kiln cars with green (raw) brick is 127,008 pounds. Weight per bearing is 10,524 pounds. They run 24 hours a day, 7 days a week.



Kiln car with dried bricks waiting to be unloaded

AREA OF INTEREST

Commercial grade lubricant would melt out of the transport bearings causing downtime and reduced production.

The extreme temperatures of the kiln reaches 3000°F (1560°C) at the top of the kiln. To help eliminate the extreme

temperature at the track level, pea gravel, car insulators and fans reduce the temperature down to 300°F (148.9°C). The managers were looking for a grease that would stay in, not melt, and lubricate the bearings with no unplanned downtime. In other words, be reliable.

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LE SOLUTION

Kiln Supervisor Nathan Wallace uses LE's 1251 ALMASOL® High Temperature Lubricant as recommended by personnel at Triangle's Moncure plants where it has been used successfully for several years. The LE 1251 is only applied to the bearings once a year and has minimal cleanup. LE's 1251 (a non-melt grease) is used where a high temperature grease is required, such as kiln car bearings, oven conveyors, asphalt plants, soot blowers and similar applications. It contains ALMASOL®, LE's exclusive wear reducing additive which has an affinity for metal and attaches itself in a single microscopic layer that possesses tremendous load carrying capacity, minimizes metal-to-metal contact which significantly reduces friction and wear.

CUSTOMER COST SAVINGS

Any cost savings would be difficult to calculate since they do not have a prior product to compare against. Nathan and his superiors want performance and reliability in the products they use. That's what LE 1251 has given them. Keeping the kiln running 24 hours a day, seven days a week is the reason for using the best product available. Any unplanned downtime is very costly and unacceptable. **LE's 1251 for kiln car bearings is their product of choice. No other product can compare. Since the plant started in 2000, there have been no lubricant related failures, problems or downtime with the kiln car bearings.**

An unplanned or hidden cost savings that has occurred or additional cost that Triangle Brick has avoided by using LE 1251 rather than using a lower performing product is **they only have to lubricate the kiln car bearings once a year.** Other products would not last and would have to be applied more than once a year resulting in additional cost in labor and lubricant.

Nathan stated, *"Keeping my kiln on line with minimal downtime is what makes Triangle Brick Co. stay one of the leading manufacturers of brick in the USA. LE 1251 keeps our kiln up and running."*

OTHER PRODUCTS USED

Triangle Brick uses LE's 1250 ALMASOL® High Temperature Lubricant in the kiln exhaust systems. LE 1250 is a NLGI #2½ grease whereas LE 1251 is a NLGI #1 grease.



Hot air exhaust fan



Kiln car wheels during assembly
(above and below)



We would like to thank Kiln Supervisor Nathan Wallace and local LE Lubrication Consultant Jeff Boyles for providing the information to prepare this report.



Jeff Boyles