**Monolec® High Temperature Oven Chain Lubricant (9965)**

**Johns Manville Corporation, Penbryn Plant – Berlin, N.J.**

**Process Oven Chains**

- Reduced amperage
- Eliminated carbon buildup
- Decreased labor time
- Reduced lubricant usage by 1,375 gallons, in a one-year period

**Customer Profile**

Johns Manville, a Berkshire Hathaway company, is a leading manufacturer and marketer of premium-quality building insulation, commercial roofing, roof insulation, and specialty products for commercial, industrial, and residential applications. Johns Manville has revolutionized the building insulation industry by introducing an entire line of formaldehyde-free fiberglass building insulation. This product is manufactured at the Penbyrn facility located in Berlin, New Jersey.

**Application**

This plant uses a large oven to cure the rolled insulation. The product is then cut and packaged for delivery to customers worldwide. The oven is quite large, over 300 feet in length, and has multiple zones of high temperatures inside. The uncured product is pulled through the oven with two large roller chains and lifts.

**Challenge**

The chains were experiencing large amounts of carbon buildup due to the previous high temperature chain lubricant. High amperage draws were also a major area of concern for the plant. The amperage loads would increase when the chain became heavy with carbon build up.

**Solution**

Tony Volkens, plant engineer and Joe Galante, maintenance planner/supervisor, met with the local LE lubrication consultant to discuss what could be done. The LE consultant explained that LE products are engineered to reduce friction, lowering electricity consumption; provide excellent protection for the chains; and help eliminate carbon build up on the chains. Monolec® High Temperature Oven Chain Lubricant (9965) was recommended. It is designed specifically to reduce operating temperatures, increase wear protection, and extend chain life. This reduction in oven chain wear and tear, also affects the entire maintenance staff, by reducing the amount of man-hours needed to perform housekeeping on the oven.

**Results**

Prior to the conversion, while still using commercial grade synthetic oil, amperage readings were taken on the unit. Under full load, amperages and chain conditions were measured. The average amperage load was between 80 and 90 percent of full load, and the chain was coated with a 2-inch thick coating of carbon. With the local LE lubrication consultant’s assistance, Johns Manville used LE products to remove the carbon build up on the chains. A full conversion to Monolec 9965 was implemented, and amperage loads and chain conditions where then recorded.

The oven amperage loading is now maintained between 50-60 percent of full load, and the chains have zero carbon build up. Lubrication Engineers has been very active in helping Johns Manville obtain maximum performance from their oven, while lowering operating costs. They have offered solutions for the placement of the automatic spray lubricator and helped train and educate all of Johns Manville staff.
technicians and maintenance staff on cost effective usage of the proper lubricants.

In addition, lubricant usage has been reduced by 1,375 gallons, resulting in a cost savings to Johns Manville of $37,260.20 in a one year period!

Johns Manville was also introduced to a total reliability concept, converting their lube room to a Tote-A-Lube, Oil Safe room (see pictures below).

Tony Volkens, plant engineer, states, “I was very skeptical of LE products at first, however, the service and dedication shown by our LE consultant and the entire Lubrication Engineers staff, has proven to me there is a difference. I am very confident in LE. That is why we are introducing other LE products here at this location. I believe they can help me.”

Other Products Used
Almasol® High Temperature Lubricant (1250)
Almaplex® Industrial Lubricant (1275)
Quinplex® Synthetic Food Grade Oil (4046)
Monolec® R & O Compressor / Turbine Oil (6401)
Monolec® Hydraulic Oil (6520)
Multilec® Industrial Oil (6803 & 6806)
Monolec® Power Fluid (7500)
Monolec Ultra® Engine Oil (8800)
Monolec® Synthetic Industrial Oil (9068 & 9150)
Monolec® Synthetic Industrial Lubricant (9220 & 9460)
Tote-A-Lube stackable poly tanks
Oil Safe® containers

Thank you to Tony Volkens, plant engineer, Joe Galante, maintenance planner, and to Jennifer Rybacki, 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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