

**1250 ALMASOL® HIGH TEMPERATURE LUBRICANT**

**POLYCLAD LAMINATES, Santa Ana, CA**

**Vertical Lamination Treater Oven • SIC 3083 Laminated Plastics Plate & Sheet**

**CUSTOMER PROFILE**

Polyclad Laminates is located in Santa Ana, CA. They manufacture printed circuit boards, which are used in a variety of industries throughout the world.

**APPLICATION**

An AISCO International vertical lamination treater oven is used in the curing process of printed circuit board prepeg material. The printed circuit board prepeg is transported through six oven zones for the curing of the finished product.

**AREA OF CONCERN**

Using a specialty grade high temperature lubricant, Polyclad Laminates was finding that the lubricant was dissipating from the bearings, causing bearing failure on one of the ovens. This problem would occur

**CUSTOMER COST SAVINGS**

Since converting to LEs 1250, they have had no lubricant related failures in the treater oven bearings. The following graphically demonstrates the cost savings using LEs 1250 ALMASOL® High Temperature Lubricant.

<b>\$302,400.00</b>	<b>Lost production time (14 mo.)</b>
	<b>(4 hrs./mo.)</b>
	<b>(\$5,400/hr)</b>
<b>383.04</b>	<b>28 bearings at \$13.68 each</b>
<b>952.00</b>	<b>Labor (56 hrs. at \$17 hr.)</b>
<b>\$303,735.04</b>	<b>Total Savings Over a 14 Month</b>

once a month. The oven zones run at temperatures up to 385°F (196°C). The unscheduled downtime on the equipment was exceptionally costly. Management estimated that it cost \$5,400 per hour. The bearing set replacement cost was \$13.68 each. It usually required maintenance personnel four hours of maintenance and labor time before production could resume after a bearing failure. The hourly rate for maintenance was estimated at \$17 per hour.

**LE SOLUTION**

In November 1988, LE Representative Bob Stewart recommended LEs 1250 ALMASOL High Temperature Lubricant for this application. LEs 1250 is an inorganic lubricant which contains ALMASOL®, LEs exclusive wear-reducing additive. It is recommended where high temperature greases are required.

We wish to thank Jim Heard, Facility Engineering Manager and LE Representative Bob Stewart for the information provided to prepare this report.



Based on actual user experience. Individual results may vary. Product used not intended to supersede manufacturer's specifications.

**LUBRICATION ENGINEERS, Inc.**

*Leaders in Lubricants*

