



Duolec® Vari-Purpose Gear Lubricant (1606)

NSO Resins – Greenwood, S.C.

Davis Standard 96mm, 69mm Extruder

- **Reduced oil temperature 50°F**
- **Extended oil drain intervals from 6 months to more than 4 years**

Customer Profile

NSO Resins is located in Greenwood, South Carolina. They specialize in nylon resins. They have been an LE customer since May, 1999.

Application

NSO Resins uses a Davis Standard 96mm extruder and a 69mm twin screw extruder for producing plastic pellets.

Challenge

NSO Resin's maintenance manager, Jim Buist, wanted to safely extend his drain interval, reduce the temperature and maintenance downtime on his equipment. He was experiencing high heat and costly downtime when using a commercial grade oil.

LE Solution

Mark D. Jones, LE lubrication consultant, recommended LE's ISO 320, Duolec® Vari-Purpose Gear Lubricant (1606) for the Davis standard extruders and recommended Lubrication Engineers Oil Analysis Program (LEAPSM) to safely extend oil drains, and monitor the condition of the oil and equipment.

Results

In 1999, Mark presented Jim the benefits of LE lubricants and the LEAP program. Jim realized the cost savings NSO Resins could achieve in lubricant cost and equipment downtime. The normal change interval was six months on each extruder. The oil has now been in both extruders for more than four years and is still in excellent condition. NSO has only purchased two 55 gallon drums in four years instead of the thirteen 55 gallon drums they had been purchasing with a commercial grade oil. Each extruder holds 50 gallons of oil.



Jim has saved a total of \$1,950 in waste oil disposal cost he would have had to pay if he changed the extruders every six months. The oil temperature dropped 50° F taking undue heat off the equipment and surrounding work areas. During July and August, the extruders would shut down from the excessive summer heat and would take several hours for the extruders to come back online and start running. They have not shut down from the summer heat since using Duolec 1606. This is an estimated savings of 48 hours of downtime in the last four years.

The total cost savings LE lubricants have achieved are well over \$10,000 in maintenance, oil costs, disposal costs and production downtime. Duolec 1606 has paid for itself and the other lubricants used by the plant for the next several years.

Other Products Used

- Almasol® High Temperature Lubricant (1250) in the California 100 Century pellet mills
- Almaplex® Industrial Lubricant (1275) throughout the plant
- Multilec® Industrial Lubricant (6803) in Ingersol Rand rotary screw compressor

Thank you to Jim Buist, maintenance manager, and to Mark Jones, 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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300 Bailey Avenue • Fort Worth, TX 76107 • Fax: 800-228-1142
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www.LElubricants.com
800-537-7683