

Segmented Tire Mold Application

An American tire manufacturer increases production and saves on costly mold repair by switching lubricants.

U.S. tire manufacturer improves bottom line with new lubricant

A major tire manufacturer located in the United States was experiencing significant, recurring problems with galling—roughening, wearing, or warping of metal at key moveable joints—on its segmented tire molds. This resulted in frequent production downtime and required costly repairs (averaging \$5,000 per mold).

The Challenge

The manufacturer needed to reduce or eliminate galling on mold surfaces. Extending re-lubrication intervals was also a high priority. Because tire plants use electrically and steamheated segmented molds, the lubricant chosen had to be unaffected by steam and able to withstand high temperatures. In addition, it was important that the lubricant would not carbonize.



The Solution

The facility switched from a competitor's product to Krytox" TM-7 lubricant from Chemours and began to see immediate benefits. The problems previously experienced with galling have been eliminated; so, tire presses are no longer forced to sit idle while waiting for costly repairs to the molds. What's more, Krytox" TM-7 can effectively lubricate segmented tire molds for up to 120 days, extending the re-lubrication interval by up to three times the old cycle.

Key Advantages

- Using Krytox[™] TM-7 lubricant, the facility was able to eliminate the problem of galling, not only saving mold repair costs but increasing production by keeping tire presses up and running.
- Lubrication cycle was extended from approximately 45 days to as long as 120 days, reducing costs and minimizing downtime for maintenance.
- Krytox[™] TM-7 can be used in similar applications where heated metal slides across other metals, such as compression molding machines.

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