

CASE STUDY



DIE CASTING PLUNGER SLICK® 200T

CHALLENGES

A key die casting plant manufactures automotive components for a major automotive manufacturer. They were facing wastage and performance issues with their die casting operations and were specifically looking to alleviate the following issues:

- » Beads clogging the dispense tube which prevented delivery to the shot tip
- » Tip coverage that was not uniform and complete, adversely reducing tip life

THE SOLUTION

- » Quaker Chemical Corporation (“Quaker”), developed a new “talc-based technology” tip lubricant
- » Quaker made adjustments with viscosity- base oils and water vs. oil lubrication and developed the new PLUNGER SLICK® 200T oil based plunger lube
- » After a trial period using this new product, Quaker was able to:
 - » **Improve shots from 5,000 to 15,000-20,000 before replacement was needed**
 - » Have the machine run cleaner without any black residue on biscuits
- » Which ultimately resulted in:
 - » **400% tip life increase**
 - » **Substantial cost and usage savings up to 35%**

THE PRODUCT

PLUNGER SLICK® 200T is a high performance plunger lubricant formulated for aluminum die casting operations. Engineered chemistries provide excellent boundary protection for plunger tips and shot sleeves.

THE EXPERTISE

The Quaker PLUNGER SLICK® family of plunger lubricants exhibit strong adherence and reduced residue extending your tip and sleeve life and production cycles. The Die Casting product line offers a complete package of value-added fluids including die casting lubricants, quenchants, fire-resistant hydraulic fluids, ladle coatings, trimming lubricants, cleaners and machining fluids. This case illustrates the importance of supplier relationship, support and correct fluid selection. Proper selection and application of the fluid can result in substantial cost benefits. That is why Quaker focuses on developing solutions with the highest performance without compromise, fluids that sharpen your competitive edge.

PROCESS AND EQUIPMENT

Physical State	Liquid
Color	Brown
Odor	Hydrocarbon
Solubility	Insoluble in Water
Flash Point	266 °C/510 °F
Specific Gravity (g/cc) at 15.5 °C	0.985
Bulk Density at 60 °F	8.22