

## Die Casting : 400% Plunger Tip Life Increase

### PLUNGER SLICK® 200T

#### The Challenge

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

- 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

The Quaker Houghton team developed a new "talc-based technology" tip lubricant. The team made adjustments with viscosity- base oils and water vs. oil lubrication and developed the new PLUNGER SLICK® 200T oil based plunger lube.

#### 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

#### The Benefits

After a trial period using this new product, Quaker Houghton 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% plunger 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.