

## CLEAN ROOM PLASTIC INJECTION MOLDING

HASCO® uses Dicronite® to develop pharmaceutical manufacturing solution



### BACKGROUND

HASCO®, an international mold manufacturer, was charged with creating plastic injection molding equipment for the manufacture of pharmaceutical spray bottle screw caps. The system design required:

- High dimensional stability: 0.05 mm for threads, sealing edges, and snap-in edges
- Suitability for clean room production
- Cycle time less than 17 seconds
- Effective demolding – part has undercuts, angled ribs, and threads

### DESIGN

HASCO® engineers created an innovative solution that incorporated standard transmission components and pre-hardened, tempered stainless-steel molds. Dicronite® was applied on the molds and all transmission components including gear wheels, toothed racks, ball bearings, spherical bushings, guide rails, and guide blocks.

### RESULTS

- Dicronite® bonded to mold surfaces as well as guide rails treated with a hard coating
- Dimensional stability was maintained
- Faster mold movements resulted in shorter cycle times
- Friction and heat was reduced, resulting in less wear of transmission components
- No additional lubrication was necessary and therefore, no particulates or outgassing compromised the clean room environment
- Faster mold movements resulted in shorter cycle times
- Molds released effectively in extremely high temperatures

*With the help of Dicronite®, HASCO® delivered an effective clean room manufacturing solution capable of producing plastic parts for pharmaceutical use.*

