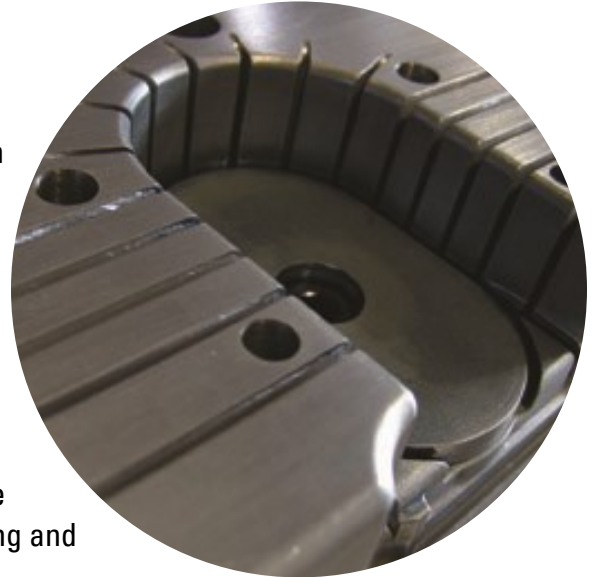


Plastic Molding Heat Seal Pins

Situation:

A major manufacturer of LCD televisions is using a heat-sealed pin system to bond two pieces of the front cabinet panel. The manufacturer encountered severe sticking of the resin to the heat seal pin resulting in waste and stoppage. Production was less than 50% of the goal.

A Teflon coating was applied to attempt to improve the situation. With the Teflon coating production increased, but to only 60% of the production goal and with 2 stoppages per shift required to manually remove waste resin and apply an additional mold release agent to the pins. The Teflon coating required complete re-polishing and re-application every 2 to 3 weeks, at a cost of \$7,000.



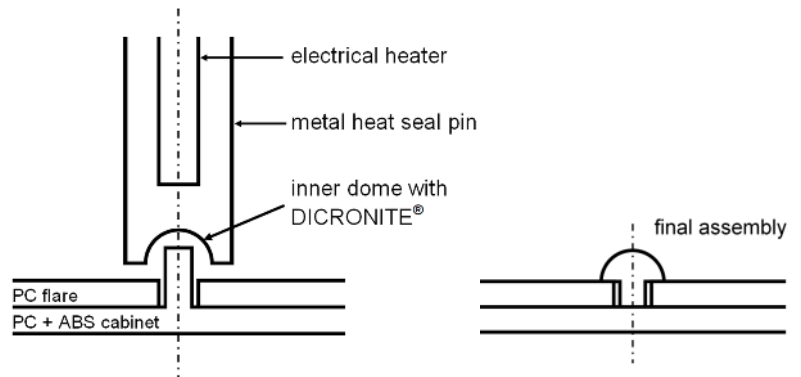
The manufacturer wanted a coating that could operate at or above a temperature of 185°C continuously, increase production at least 25% over current situation, not change pin cavity geometry to ensure conformance to design specifications, and reduce net cost relative to Teflon coating and downtime.

Testing:

DICRONITE[®] dry lubrication was applied to the cavity and sliding surfaces of the pins in place of the Teflon coating.

Results:

- Production throughput increased by over 28%
- Scrap rates decreased
- Production stoppages and secondary release agent usage were eliminated
- Higher operating temperatures (>185°C) could be used, allowing further optimization of production
- Coating operating costs were reduced by greater than 50%



DICRONITE[®] has been incorporated into the facility-wide preventative maintenance program.