

Proven Precision Dry Lubrication



Plastic Molding Heat Seal Pins

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Situation:

- A major manufacturer of LCD televisions is using a heat-sealed pin system to bond two pieces of the front cabinet panel. There are 10-15 heat seal pins per jig depending on panel size.
- 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.
 - 2 stoppages per shift were required to manually remove waste resin and apply an additional mold release agent to the pins.
 - The Teflon coating required complete repolishing and reapplication every 2 to 3 weeks, at a cost of \$7,000.

Requirements:

- 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 specifications.



• Net cost reduction relative to Teflon coating and downtime.

Results:

Dicronite dry lubrication is being applied to the cavity and sliding surfaces of the pins. As a result:

- Production throughput has increased by over 28% and scrap rates have decreased.
- Production stoppages and secondary release agent usage have been eliminated.
- Higher operating temperatures (>185°C) are being used, allowing production staff to further optimize production.
- Coating operating costs were reduced by greater than 50%.

Dicronite dry lubrication has been incorporated into the facility-wide regular preventative maintenance program.

Dicronite is available throughout the world. For more information visit us at: www.dicronite.com or contact Lubrication Sciences International at 800.874.4319 • 408.834.7442 • inquiries@dicronite.com