Boosting Capacity and Process Performance without Capital Expense

PolyOne OnCap™ CTR solution helps luxury European automaker meet peak demand without adding tooling or machinery.

**Situation**

Inherent to the automotive industry are ups and downs in consumer demand. As demand increases and decreases, suppliers are challenged to ramp up or slim down. PolyOne was called to assist a specialty automotive molder who needed to accommodate these fluctuations in supplying parts to a luxury European automaker.

The molder was supplying a radiator shroud made from a black talc-filled polypropylene on a 1500-ton single cavity injection system, and was struggling to meet peak demand, which in turn fostered quality issues as they raced to keep up. The supplier called PolyOne for help.

**The PolyOne Difference**

The PolyOne team began by working with the supplier to optimize molding machine parameters to boost productivity, but the molder needed additional efficiencies. PolyOne then suggested a performance-enhancing additive designed to improve throughput. These changes led to an increase in capacity and process efficiency that allowed the molder to meet peak demand without the additional capital expense of tooling and equipment.

During mold trials using the new optimized parameters and PolyOne’s OnCap CTR process optimization solution, the customer was able to achieve better flow and moldfilling in addition to reduced cycle times. Moreover, the parts produced had increased dimensional stability compared to former production parts, which had been plagued with warpage issues. The critical dimensions of the parts were all within tolerance and reject rates were improved.
Delivering a Value-Added Solution

The PolyOne technical team and OnCap CTR additive allowed the supplier to improve part quality and gain an increase in operational efficiency. Implementing the suggested changes decreased each part’s cycle time by more than 24 percent and reduced the cost of each part by 5 percent. By producing more parts in less time, the supplier was able to save more than $65,000 even after factoring in the cost of the process optimization solution.

In sum, the supplier was able to meet increased demand without adding extra manufacturing capacity, which would have required additional capital expense. This result has led the molder to continue working with PolyOne and to utilize OnCap CTR additive in several other parts, to give them that needed boost to their production and to their competitive edge.

PolyOne offers specialized solutions such as OnCap™ CTR that are targeted at helping customers meet performance and sustainability goals, increase profitability, and maximize value in every way possible.