

SUCCESS STORIES

Improve Mixing Performance to Reduce Injection Molding Scrap

XALOY

Injection Molding Scrap Rates Drop From 10% To 1% With Custom Xaloy® Screw Design

The right plasticizing components are important in the injection molding process. Using the wrong screw design can lead to numerous problems that include poor mixing capability and a high scrap rate. Screws designed for the specific application and resins optimize mixing capability and decrease scrap.

THE CHALLENGE

An injection molding manufacturer in South Asia was challenged with color dispersion on multiple lines in their plant. They were processing acrylonitrile butadiene styrene (ABS) with 4% masterbatch, using 28mm 20:1 and 36mm 22:1 general purpose screws in CH Supermaster (OEM) injection molding machines. Turning to Xaloy, they asked for a solution that would solve their mixing issues and reduce scrap rate.

THE XALOY SOLUTION

After evaluating the problem, our team of engineers recommended switching to a single flighted screw with an Xaloy® Pulsar® mixer. The Pulsar® mixer was developed to enhance color dispersion when processing shear sensitive resins, providing up to four times the mixing capability.



Xaloy® Pulsar® Mixer

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THE RESULT

The customer reported significant success in both their lines using the Pulsar® mixer. Achieving homogenous melt and excellent color dispersion, their scrap rate decreased by 90%.

Process Improvements

- Scrap rate reduced from 10% to 1%

SCRAP RATE

