

Ultra Purge™ 5 Tips and Tricks to Improve Your Injection Molding Process

Purging an injection molding press, whether it be for color changes or removal of carbon, can be very time consuming and expensive. Lost production time and the scrap resin cuts into the company's profit margin making it more difficult to compete in this difficult economy. Here are a few basic tips a company can follow in order to help reduce the down time and scrap. These are easy to do and they require no monetary investment.



1 - Dark to light changes.

Increase the temperature of the nozzle and hot runners (all zones). The temperature increase depends on the application. Please discuss with your purging compound representative. Increasing the temperature is to help melt the dark color that is being removed, thus reducing the viscosity and making it easier to be removed from the press.



2 – Reduce shot size.

When performing a color change on large tonnage presses (greater than 200 ton). Reducing the shot size to 10% of the maximum allowed shot size will work the check ring more allowing it to clean up faster. Also, the short bursts through the nozzle (or hot runners if applicable) will pull out more color.

3 - Preventative Maintenance Program.



This will combat carbon build up. Black specks can be a nuisance for companies processing thermo-sensitive resins. It is important to remove the carbon before too many layers of degraded material form on the screw. After a certain point of carbon build up the only way to truly clean the screw is to pull it and manually clean it. Using a PM program, whether it is every couple days or every couple weeks, will help prevent carbon build up and removal of screw.

4 – Shut down press properly.



This make start-ups easier. When shutting down presses remember to first purge the machine. Purging a machine before shut down will prevent material from degrading on the screw, resulting in a much faster start up.

5 – Establish a protocol.

The easiest and most basic way to reduce scarp and downtime is to have a protocol established to clean the hopper and conveying system of the previous production color. Many times the previous color will hang up in hopper or conveying system and it will slowing be released into the press resulting in contaminated parts. Also, make sure there is no contamination in the resin being used in production.

Proper application doesn't guarantee productivity on its own, it must be combined with outstanding technology and customer service. Partnering with Chem-Trend means direct support and innovative solutions for all injection molding processes.

