# Polymer System for Purging High-Temperature Resins

The Dyna-Purge® Division of Shuman Plastics, Inc., Depew (Buffalo), NY, USA has introduced the company's most advanced technology breakthrough in high heat stability and enhanced cleaning -- New Dyna-Purge® E2. The unique New Dyna-Purge® E2 integrated polymer system was developed for purging high-temperature resins safely and efficiently in all areas of the machine, including tight channels.
According to Tim Cutler, Vice President of Dyna-Purge®, the proprietary formulation of New Dyna-Purge® E2 is a breakthrough advancement in purging high-temperature engineering resins.

"An independent study on New Dyna-Purge® E2 demonstrates that it is more effective than mechanical (abrasive) and chemical purging compounds for high-temperature resins, resulting in reduced scrap rates and improved changeover times," he explained. "We are proud to bring this innovation to the plastics processing industry for applications such as injection, extrusion and compounding."

The Dyna-Purge® division of Shuman Plastics commissioned The Institute of Polymer Science and Polymer Engineering at The University of Akron to conduct an independent study of New Dyna-Purge® E2 in December 2011. The study compared the new Dyna-Purge E2 integrated polymer system to a mechanical-abrasive purging product that is highly glass filled (approx. 50%) polycarbonate-based resin and to a chemical purging product that is a polyolefin compound with chemical additives, including inorganic and inert salts. All trials were conducted on a 55-ton Van Dorn injection molding machine using three different resins: Polysulfone (PSU), Polyetherimide (PEI) and Polyphthalamide (PPA).

In an effort to control the variables and validate the results, each of the three commercial purging compounds followed the same trial protocol. Upon completion of each trial, the inspectors reviewed the “post-purge” resin (HDPE), assigning a “Pass” or “Fail” rating based on the presence of contamination and the degree of visual clarity. In each trial, only New Dyna-Purge® E2 received a “Pass” rating, showing both the purge compound and post purge resins were clean and free of contamination. A copy of the independent study with complete results and trial protocol information is available from Dyna-Purge by visiting www.dynapurge.com [1].

Tim Cutler noted that New Dyna-Purge® E2 cleans faster with less downtime, while it lowers purging costs and scrap rates to save money. It is effective at purging a wide range of high-temperature engineering resins including PEEK, PEI, PPS, PPA, PSU, etc., with consistent and reliable results.

As part of the new product introduction, plastics processors can choose one of two special offers: a free 10 pound sample of New Dyna-Purge® E2, or the purchase of a 55 pound box of New Dyna-Purge® E2 with the company's Satisfaction Guarantee -- if the user is not satisfied that it performs better than their current purging compound, Dyna-Purge® will fully refund the cost of the product.

**Shuman Plastics Inc., Dyna-Purge Division**
716-685-2121; www.dynapurge.com [2]

**Source URL (retrieved on *12/12/2013 - 2:25am*):**
http://www.mdtmag.com/product-releases/2012/02/polymer-system-purging-high-temperature-resins

**Links:**
[1] http://www.dynapurge.com
[2] http://www.dynapurge.com/