

# Colour Concentrate Compounder Reduces Downtime by 88% Using Dyna-Purge® Engineered Purging Compounds.



In addition to stocking masterbatch colours, Hampton Colours produces unique colours for a wide range of industries. Purging is required for colour or material changes, but removing the “plug” from the die head of the extruder would result in leaving sticky residues on surfaces. Testing Dyna-Purge E, Shaun Walker, Machine Operator, found that the **composition of Dyna-Purge allows workers to remove the “plug” without leaving residual polymer in the die head.**



Purging Nylon 12 based Black Dye Masterbatch previously took about 40 minutes and consumed large quantities of the company's own purging formulation and virgin polymer. By switching to Dyna-Purge E, Hampton Colours cleans the barrel and screw more effectively in only **five minutes, an 88% reduction in downtime, while using only 2 kgs of material.**

### Situation:

Hampton Colours Limited, Brimscombe, Stroud, England is an ISO registered company that manufactures universal and polymer specific masterbatches including **unique colours for specialised engineering polymers**. The company serves a wide range of industries, including aircraft, cosmetics, pharmaceutical, toys, food, fishing, and garden equipment.

Operating twin-screw compounding extruders with screw sizes of 25mm, 35mm and 50mm, the company would purge for colour or resin changes using large quantities of its own purge formulation and virgin polymer.

For example, **purging Nylon 12 based black dye masterbatch**, processed at 270°C, took at least **40 minutes** because of difficulty cleaning resin from the screw and barrel surfaces. In addition, removing the “**plug**” from the die head of the extruder was a time consuming, labour-intensive job that often left sticky residues on the internal surfaces.

### Solution:

Upon consultation with Peter Parsbo of P.A.P. Sales, Ltd., Reg Cairns of Hampton Colours tested **Dyna-Purge E, a specialized thermoplastic** purging compound designed to purge engineering resins from the barrel and screw of plastics processing machinery. P.A.P. Sales (peter@pap-sales.co.uk) is the authorized distributor of Dyna-Purge in the United Kingdom.

### Results:

- Since Dyna-Purge takes only 5 minutes to clean the screw and barrel, **downtime has been reduced by 88%**.
- Only 2 kgs of Dyna-Purge E are required for purging.
- The composition of Dyna-Purge E enables Hampton Colours to remove the “**plug**” without leaving residual polymer in the die head.