

Injection molder uses Dyna-Purge® and saves \$29,250 annually while cutting downtime by 67%.



Operating three injection molding machines, Mold Craft Products was using liquid additives and polyethylene to purge on a weekly basis. By switching to Dyna-Purge, the company decreased purging time by 3½ hours per purge - a 67% improvement.



Mold Craft produces fishing lures in an array of vibrant colors and dispersion patterns. Under the most difficult purging conditions, the company decreased its cost-to-purge by 44%, which represented an annual savings of \$29,250.

Situation:

Mold Craft Products, Inc., Pompano Beach, Florida produces a line of three dozen colorful fishing lures. The company operates two 150-ton Newbury Imperial injection molding machines with 2" diameter screws, and a 200-ton Lester model with a 3" diameter screw. Processing temperatures for the flexible PVC used to produce the lures range from 400°F in the front zones to 280°F in the rear zones.

Purging is necessary for color changes, especially when a lighter color follows a darker color, and for the removal of powdered pigments to run dispersion colors. Frequency of purging is dictated by production requirements; however, Mold Craft purges each machine about once a week for preventive maintenance purposes.

Mold Craft had used liquid additives mixed with polyethylene to purge. The amount of in-house purging material used ranged from 10 lbs. to 100 lbs., averaging about 40 lbs. **Downtime for purging would reach up to 285 minutes - nearly five hours.** Their calculated cost-to-purge was \$445 or \$66,750 annualized.

Solution:

Use Dyna-Purge M, a versatile grade designed to purge a wide range of resins from the barrel and screw at 350°F to 600°F (177°C to 315°C), and Dyna-Purge V, a grade specifically designed to purge rigid and flexible PVC at temperatures from 320°F to 400°F (160°C to 204°C).

Results:

- Dyna-Purge takes 67% less time to purge with **more than three hours saved.**
- **The maximum cost to purge decreased by 44%, saving \$29,250 per year.**
- Since Dyna-Purge cleans faster and more thoroughly, there is less resin wasted in the purging process, and no need to use other in-house materials and regrinds to purge.