

# Injection molder reduces scrap by 60% using Dyna-Purge® M.

## SITUATION

Duramould Plastics, based in Whitby, Ontario, Canada, is a fully integrated design, mold-making and production facility, specializing in engineered plastics. The company molds a wide range of resins in filled and unfilled versions, color match, natural and black.

Among the many products Duramould makes is a cable organizer produced with grey PC on a 210T Nissei machine with 56 mm screw and barrel temperatures typically ranging from 235°C to 279°C (455°F to 535°F). When purging from black PC/PBT to grey PC using acrylic regrind, there was heavy carbon build-up on screw flights, nozzle and check rings, resulting in excessive downtime and scrap rates.

Duramould contacted Dyna-Purge® and chose to run trials using Dyna-Purge® M, a versatile non-abrasive, non-chemical purging compound that can be used for purging a wide range of resins within the temperature range of 177°C to 315°C (350°F to 600°F).

## SOLUTION

Duramould began using Dyna-Purge® M on the cable organizer production run. The company noted that in using Dyna-Purge® M, going from PC/PBT black to PC grey, they saw excellent results immediately. They did not have to clean the nozzle tip and adapter, which helped to reduce downtime. In addition, the scrap ratio for the production run was 1.15%, well below their objective of 3%.

## RESULTS

- Reduced purging cost from \$128.00 to only \$50.62 per purge, a 60% improvement.
- Lowered scrap ratio per run to 1.15% from 3%.
- Improved changeover time from 1 hour to only 25 minutes using Dyna-Purge® M.



Transitioning from this black PC/PBT part to grey PC proved to be challenging. Ultimately, Dyna-Purge® M worked faster and more effectively than regrind.



Duramould used to spend \$128.00 per purge using acrylic regrind. They lowered their cost per purge by 60% using Dyna-Purge® M.



After using Dyna-Purge® M, Duramould was able to transition to a light grey PC in only 7 shots.



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CASE STUDY