

**Physical Description:**

Blend, polyethylene, and FDA-approved active component

Non-toxic, non-abrasive, and safe

Ready to use and easy to remove

**Temperature Range:**

Operating temperature range of 280°F to 550°F (138°C to 288°C)

**Applications:**

PURGEX 456 Plus is used for color and/or material changes and the removal of residual contamination in thermoplastic injection molding, extrusion, or blow molding equipment.

PURGEX 456 Plus will efficiently purge the barrel, screw, and nozzle, as well as hot runners. This blend removes all types of colorants and commodity resins, including polypropylene, polyethylene, and their copolymers. PURGEX 456 Plus is used to neutralize HCl gasses in PVC purging applications. PURGEX 456 Plus assures rapid turnaround on color and material changes with polyolefins and their copolymers, styrenics polymers, acetals, vinyls, TPO, TPU, and many more resins processed in this temperature range.

**How To Use:****INJECTION MOLDING**

- Empty barrel of production resin.
- Add PURGEX 456 Plus to the hopper (a minimum of 1.5 times the injection capacity).
- Purge the barrel until PURGEX exits the nozzle.
- Soak five minutes at processing temperature with barrel full and screw in forward position.
- Purge barrel to empty.
- Follow with next production resin, rinsing PURGEX from machine. Resume molding.

**EXTRUSION**

- Empty extruder.
- Remove screen.
- Seal vent.
- Fill extruder with PURGEX 456 Plus.
- Make certain extruder is full and PURGEX is exiting the nozzle as a foaming material.
- Soak five minutes at processing temperature.
- Add the next resin to be extruded and remove all PURGEX from the extruder.
- When it appears that PURGEX has been completely removed, replace the screen, open the vent, and commence production.



## Automotive Sub-Assembly Manufacturer Saves Big With Purgex

A Tier I automotive sub-assembly injection molding company provides molded side door panels to the automotive industry. The 10-pound parts are injection molded in a 3,000 ton press with a 400 ounce barrel capacity using a polypropylene copolymer resin with color concentrate. The process operates at 400°F with a running rate of 60 parts per hour. Historically, the manufacturer purged its machine with virgin polypropylene copolymer used for parts production.

Forty-five pounds of PURGEX 456 Plus was used to purge slate gray from the 3,000 ton injection molding machine, and 50 pounds of uncolored copolymer was used to rinse out the PURGEX (value: \$0.31/lb.). Nine reject parts were produced using 90 pounds of colored PP copolymer (value: \$0.35/lb.). Total PURGEX purging time was 15 minutes.

Before using PURGEX, the molder used 300 pounds of PP copolymer (value: \$.31/lb.) to purge the 3,000 ton machine. Next, 30 reject parts were produced using 300 pounds of colored PP copolymer (value: \$0.35/lb.). Total resin purging time was 40 minutes.

### Results

The savings in material alone was the difference between the cost of PURGEX plus the rinse cost, totaling \$143.00 compared to the PP copolymer purging cost of \$198.00. This resulted in a net material savings of \$55.00 per purge.

In addition, when purging the machine with PURGEX 456 Plus, the manufacturer was able to reduce the purging time from 40 minutes to 15 minutes, resulting in a direct savings of \$99.58 per purge, based on a \$239.00 per hour machine time cost.

The total savings per purge using PURGEX 456 Plus was \$149.58. Color changes occur two to four times daily per press. Therefore, the net annual savings for each machine at this long-term customer's facility are more than \$80,000.



**Purging Compounds That Really Work**  
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