EXTRUSION PROCESSES

Chemical Purging Instructions

Note: If purging MULTI-LAYER dies, each layer can be purged separately. If all extruders are not being purged, it would be beneficial to run natural PE thorough extruders not being purged to eliminate residency time and prevent burning at elevated temperatures.

Concentrate grades must be mixed with a carrier resin prior to use – Please see Chemical Mixing Instructions

Preparation

- Run machine to empty all production material.
- Remove screens. Breaker plate can be left in for the purge.
  - If FIBER extrusion line - remove spinnerettes.
- Clean hopper and screw inlet of resident material.
- If vented barrels, cap vents for maximum effectiveness. Clean vent throat of resident material.
- If possible, push hopper aside to get direct access to the throat. If not possible, RapidPurge can be fed via hopper magnet drawers or hopper itself.

✔ *Tip* Pre-flush system with natural material to minimize resident material/color prior to purging. Empty system again.

✔ *Tip* If challenging degradation exists, raise temperature (25 degrees or more) in zones after the screw for added chemical reaction and maximum cleaning results.
Never exceed maximum temperature of resident resin.

Temperature Sensitive Materials If purging temperature sensitive materials like PVC, POLYACETALS, ABS, or Flame Retardant resin, please see page 2 before proceeding.

Purging

- Feed RapidPurge directly into the throat at normal production RPM until RapidPurge is observed uniformly exiting from the die.
  - If HIGH TEMPERATURE purging - starve feed RapidPurge to prevent bridging /collaring at the feed zone.
  - If MULTI-LAYER – repeat for each extruder in succession until all layers are observed exiting from the die.
- For vented-barrel systems, vary screw RPM to change velocity as it comes through the decompression zone.
- Continue adding RapidPurge as required until resident material/color is removed.

✔ *Tip* After RapidPurge is seen uniformly exiting from the die, screw speed can be reduced to a minimum RPM to increase residency time and provide maximum effectiveness. Extrude RapidPurge slowly through the system until purgings are clear of contamination. Do not stop the screw.

Post-purge

- Empty system until all visible traces of RapidPurge are removed.
    - If MULTI_LAYER – empty RapidPurge at normal RPM one extruder at a time. Flush from the bottom extruder working in sequence to the top.
- Clean RapidPurge from feed areas to reduce contamination.
- Replace screens and/or spinnerettes.
- Reset temperatures.
- Follow with production material until all traces of RapidPurge are removed.

✔*Tip* Varying screw speed while running new production material may help to clear RapidPurge from the system more quickly.

✔*Tip* If switching to material of decreased viscosity, bridging down may be required to assure removal of purge residue.

✔*Tip* **RapidPurge chemical compounds are excellent for shutdowns.** Simply empty the machine after the purge, leaving residual RapidPurge in the system with heats turned off. At start-up, bring equipment up to operating temperature and introduce production material to remove residual RapidPurge.

Temperature Sensitive Material

If purging temperature sensitive materials like PVC*, POLYACETALS, ABS, or Flame Retardant resin, two purges may be required.

- The first purge MUST be performed at normal operating temperatures to remove the temperature sensitive material.
- If carbon deposits are still present after the first purge, a second purge can be performed at higher temperatures.

***PVC**

If purging PVC with our standard chemical grades - **PM9240, PM5540, PM8240, IG3000**

- It is required to PRE-FLUSH system with natural PE/PP prior to introducing RapidPurge.

If purging PVC at low temperatures - below 380°F,

- Increase temperatures, except feed throat, to 380°F for the first purge.
- If carbon deposits are still present after the first purge, Raise the heats on the nozzle and front zone and purge again

If following RapidPurge with PVC or other temperature sensitive materials,

- Let machine cool back to operating temperatures before introducing the next resin, or use polyethylene as a temperature bridging material.

Questions/Comments? Contact us at 800-243-4203 or info@rapidpurge.com

These instructions are provided as general guidelines only. Your application, material, and/or process may have unique requirements. Please feel free to contact our Technical Services department at any time so that we may assist you in achieving maximum purge results with our RapidPurge products.