Document ID: PP-101 Issue Date: 09/21/12 Revision No.: 0 Revision Date: n/a

PURGING PROCEDURE FOR INJECTION MOLDING **Hot Runner System: Open Mold**



When purging the barrel, screw and hot runner system for the first time with Purgex™, use 3 times the injection capacity and soak for 5 minutes. When routinely purging the barrel, screw and hot runner system with Purgex™, use approximately 1 to 1-1/2 times the injection capacity and soak for 3-5 minutes.

Preparation Before Purging

(with about 5 minutes remaining in the production run)

- Turn off material flow. 1.
- Maintain process settings and continue running parts. 2.
- Clean hopper and/or colorant blender. 3.
- Load established amount of Purgex[™] into hopper/feed zone. 4.
- 5. When last full part is completed, retract carriage and soak Purgex™ in the barrel for 3-5 minutes.
 - \Rightarrow **Note**: A small amount of PurgexTM should be visible on the last part and/or a short shot occurs. Purgex™ is now soaking in the tool while the barrel is being purged.
- 6. Clean nozzle and sprue bushing.

Purging the Machine and Hot Runner System

- Adjust shot size to roughly 25% of injection capacity. 1.
 - \Rightarrow **Note:** The setting change in Step 1 is recommended because it assists PurgexTM in working more effectively and efficiently.
- 2. In manual mode, purge out barrel and screw with Purgex™.
- With about one half (½) an injection capacity of Purgex™ still in barrel, stop and 3. thoroughly clean hopper and/or colorant blender.
- 4. Turn on material flow and add next production resin to hopper and/or colorant blender.
- 5. Insure all gates are open.
 - Note: For ease of flow through the tool, it may be necessary to raise the hot runner temperatures 50°F (10°C).
- 6. Move carriage forward and seat nozzle into sprue bushing.
- With mold open, extrude Purgex™ through the tool. 7.
- Continue purging the hot runner system with at least one injection capacity of the next 8. production resin (with colorant on) to rinse out residual Purgex™ until the exiting material appears smooth and free-flowing.
- 9. Clean nozzle and sprue bushing.
- 10. Change settings to prepare machine for next production run.

Comments & Recommendations

- Highly contaminated machines, or the use of liquid colorants may require additional purging with Purgex™ and/or extra soak time (eliminate the soak time(s) on resins processed over 600°F (316°C)).
- \Rightarrow PurgexTM is stable and is safe to leave in the barrel for long term shutdowns.
- ₽ Purgex[™] can be used effectively in many ways. These procedures are offered as a reference and have been shown to be the most effective in plant trials and our controlled lab experiments.
- Purgex™ should be thoroughly tested on any process following these basic guidelines
 as a baseline before using any alternative method.

Purging Compounds That Really Work

Manufactured by: