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## PURGING PROCEDURE FOR INJECTION MOLDING Hot Runner System: Closed Mold



Note: When purging the barrel, screw <u>and</u> hot runner system <u>for the first time with Purgex™</u>, 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)

- 1. Turn off material flow.
- 2. Maintain process settings and continue running parts.
- 3. Clean hopper and/or colorant blender.
- 4. Load established amount of Purgex™ into hopper/feed zone.
- 5. When last part is completed, retract carriage and soak Purgex<sup>™</sup> in the barrel for 3-5 minutes.
  - **Note**: A small amount of Purgex<sup>™</sup> should be visible on the last part and/or a short shot occurs. Purgex<sup>™</sup> 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**

- 1. Insure all hot runner 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).
- 2. In manual mode, purge barrel until Purgex™ is visible and then run one more Purgex™ shot.
- 3. Clean nozzle and sprue bushing.
- 4. Move carriage forward and seat nozzle into sprue bushing.
- 5. In semi-auto mode, cycle 2 shots, pulling Purgex<sup>™</sup> parts off mold after each shot.
- 6. With Purgex<sup>™</sup> still in barrel, stop and thoroughly clean hopper and/or colorant blender.
- 7. Turn on material flow and add the next production resin to hopper and/or colorant blender.
- 8. In semi-auto mode, cycle machine 4 shots, pulling Purgex<sup>™</sup> parts off mold after each cycle.
- 9. Change settings to prepare machine for next production run.
- 10. In semi-auto mode, continue running Purgex™ parts until parts are free of Purgex™.
- 11. In auto mode, start machine and run 3 to 5 full shots to insure rinse is complete.
- 12. Begin counting production parts.

## **Comments & Recommendations**

- Highly contaminated machines or the use of liquid colorants may require additional purging with  $Purgex^{TM}$  and/or extra soak time (eliminate the soak time(s) on resins processed over 600°F (316°C)).
- Purgex™ is stable and is safe to leave in the barrel for long term shutdowns.
- Purgex<sup>™</sup> 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.

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