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PURGING PROCEDURE FOR INJECTION MOLDING Hot Runner System: Open Mold



Note: When purging the barrel, screw and hot runner system for the first time with <u>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 full part is completed, retract carriage and soak Purgex[™] in the barrel for 3-5 minutes.
 - Note: A small amount of Purgex[™] 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

- 1. Adjust shot size to roughly 25% of injection capacity.
 - Note: The setting change in Step 1 is recommended because it assists Purgex™ in working more effectively and efficiently.
- 2. In manual mode, purge out barrel and screw with Purgex[™].
- 3. With about one half (½) an injection capacity of Purgex[™] still in barrel, stop and 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.
- 7. With mold open, extrude Purgex[™] through the tool.
- 8. Continue purging the hot runner system with at least one injection capacity of the next 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

- ➡ Minimum gate diameter is 0.030 inches.
- ➡ 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.

Manufactured by:

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