

Econo-Purge Purging Compound Technical Guide

SLIDE®



plastixs®
manufacturing solutions

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SLIDE Econo-Purge is a specially developed cleaning compound that is delivered in a premixed and

ready-to-use pellet form. It is specifically developed for the cleaning of screws, barrels, heads, and dies to remove burned material, color hang-ups, deposits and black specks during color and/or material changes

specifically for the following resins: **PVC, EVA, POM, HDPE, LDPE, PP, Polyolefin resin etc.**

SLIDE Econo-Purge processing temperature range is from 338° F to 572° F (140° C to 300° C). It removes, at the temperature of the previously processed material any hang ups and deposits.

ATTENTION: THE TEMPERATURE RANGE STATED IS FOR CONTINUOUS PURGING OF THE MACHINE AND MOLD. IF THE PURGE COMPOUND IS GOING TO SIT IN THE BARREL AND MOLD FOR EXTENDED PERIODS OF TIME THE HEAT PROFILE TEMPERATURES MUST BE LOWERED TO 400°F to 440°F (200°C to 225°C) SO THE RESIN CARRIER DOES NOT DEGRADE. IF DEGREDDATION OCCURS IT CAN PURGED CLEAN BY PURGING AGAIN WITH FRESH PURGE COMPOUND AND THEN FOLLOWED UP WITH THE PRODUCTION MATERIAL.

The **SLIDE Econo-Purge** purging compound is **not abrasive** and works with a chemical reaction.

Since **SLIDE Econo-Purge** is manufactured with non-abrasive chemical components, color and burned polymers, black specks and also rust are softened, removed and purged from the press. There is

“NO MECHANICAL ACTION” made on the Machine Parts or Tooling.

SLIDE Econo-Purge cleans at the processing temperature of the previous production material and no soak time is required. It is recommended for hot runners.

SLIDE Econo-Purge is non toxic and is odorless. It will not damage your equipment because it does not contain solvents: all components are qualified as GRAS (Generally Recognized as Safe) by FDA.

It may happen that when running **SLIDE Econo-Purge** in older machines, where the equipment is overused, the cleaning process may not remove all of the old deposits of material that ran months ago. In

this case, a second application may be required to fully purge the machine.

It is highly recommended to close the container properly after each use. The forming of small balls of sticky substance may occur. ***This will not alter the efficiency of the product.***

The recommended storage time for **SLIDE Econo-Purge** is 12-18 months.

SAFETY: Safety is always first. Follow your established Company Procedures and Practices for Purging Machines. Purging should be performed with purge guards closed and proper face shield, gloves and long sleeve clothing. Hot Plastic can cause burns! Use Caution!

Use with Injection Molding Machines:

- Load screw, barrel with neutral grade of plastic resin (possibly suitable material) and run the machine until the material comes out in a lighter color (i.e. from red to pink and from dark blue to light blue).
- Run barrel empty and place screw in full forward position. Adjust the back-pressure of the machine to allow loading of the **SLIDE Econo-Purge** (generally 70 to 120 PSI).
- **For larger machines we recommend reducing the shot size by 10-20% of the maximum shot size.**
- Load the **SLIDE Econo-Purge** (fill the barrel completely) and start the injection cycle.
- Continue with injection process with short shots until the purged **SLIDE Econo-Purge** appears visibly clean.
- Load machine with the next production material and run machine (with normal processing values) to eliminate the rest of the **SLIDE Econo-Purge** within the machine.
- Begin normal production.

Use with Hot Runners:

- First clean the screw and barrel using the **Econo-Purge** until the ejected the **SLIDE Econo-Purge** appears visibly clean.
- Start to make injections through the hot runners with the mold closed or open until the molded or ejected **SLIDE Econo-Purge** appears visibly clean (we suggest to keep the mold open if the molded part is difficult to be ejected from the mold).
- In “hard to clean” situations, we recommend to increase the hot runner temperature of 30-40°F (20-30°C) and to increase the injection molding cycle time.
- Continue molding until the molded parts appear visibly clean (we suggest to perform at least 4 cycles).
- Load neutral or production material to eliminate the traces of **SLIDE Econo-Purge** within the machine.
- Begin normal production.

Use with Extrusion Machines:

- Run the machine with the neutral grade of the plastic resin you are going to process.
- If a screen-pack or nozzle filter is installed, it should be removed from the machine. Not removing the screen pack may result in more purge compound being used than required or bleed through of contamination after the purge process.
- Another important thing is to enlarge as much as you can the width of the film by removing the “deckles” that restrict the width of the film/sheet. In the case that you don’t remove, these two parts are dead zones, and ***will not be cleaned***.
- Load the **SLIDE Econo-Purge** and run machine at a 30°F to 45°F increased temperature (only head and die). In case of a material that can burn if the temperature is too high, do not increase the temperatures.
- Adjust screw rotation to low speed to allow the compound to expand inside the machine. The ejected purging compound should have a foamy appearance. If it does not, further reduce the screw rotation speed.
- If the purging compound mainly comes out from the venting hole, it is necessary to increase the screw speed or to try and close the venting hole. If the venting is connected with a vacuum pump, switch it off.
- If the purging compound is still coming out of the venting hole load it slowly.
- Continue to extrude **SLIDE Econo-Purge** until it appears visibly clean.
- Load neutral or production material and run machine to eliminate all removed traces of the **SLIDE Econo-Purge** within the machine.
- Begin normal production.

Use with Blow Molding Machines:

- Remove the screen pack if one is installed. Failure to remove the screen pack may result in longer change over times and possible bleed through of contaminations.
- Increase temperature of the head(s) by 80-100° F (only if possible. Some materials are HEAT SENSITIVE i.e.: PVC, ACETAL so it may not be possible).
- Load screw, barrel and head with neutral resin (possibly with production material), plasticize and purge as long as the material comes out lighter (i.e. from dark blue to light blue, from red to pink etc.)
- Load **SLIDE Econo-Purge** filling completely the barrel and the head(s).
- Restrict the die as much as possible so that the purging compound can create pressure inside the head. When it is not possible to adjust Parison thickness, increase the screw speed in order to create a head pressure. If the screw is slipping decrease the barrel/screw temperature by 70-90°F.
- Purge completely **SLIDE Econo-Purge**.
- Purge with neutral resin in order to eliminate all removed material rests and bring back barrel and head parameters to those suitable for the material to be processed. Remember to open again the nozzles.
- Begin the new production.