

PET preform machine, BARREL PURGING

Extruder/injector (and shooting pot) cleaning to eliminate the following visual defects in the preforms:
- Color change, black spot, contamination and similar.

Quantities of 20 g P&P CREAM sachets:

1 sachet for every kg of barrel capacity.

For example; a 120 mm screw has 15 kg barrel capacity, 15 sachets are needed.

Important: during the purging procedure keep the same machine parameters such as temperature, screw speed etc.) as the last process used

Procedure:

1. Stop feeding PET and any colorant. Use neutral PET from now on.
2. Backup injection unit and purge (purge also shooting pot if any), empty the barrel
3. Remove the feeding PET pipe connected to the barrel and Insert the sachets (do not tear the sachets)
4. Start rotate the screw at reduced speed in order to move forward the sachets with its cream
5. Restore the feeding PET pipe connected to the inlet of the barrel and feed with neutral PET
6. Plasticize until the first processed cream will come out from the tip of the screw. This is shown by a larger diameter of the purge flow and a different consistency of the plastic, because the cream+PET have different consistency and larger flow diameter.
7. Stop purging and keep on hold for 5 minutes (cream+Pet will react inside the barrel).
8. Purge all what is in the barrel and keep feeding neutral PET.
9. Stop purging when clean PET will come out from the tip of the screw.
10. Restore production

PET perform machine, HOT RUNNER PURGING

Hot runner cleaning to eliminate the following visual defects in the preforms:
- Color change, black spot, contamination and similar.

Procedure:

After having cleaned the barrel with the procedure above,

1. Insert into the barrel inlet a number of sachets depending on the capacity of the hot runner
2. Move forward the injection unit and put the nozzle in contact with the mold inlet
3. Increase only nozzle temperature by 10°C (keep barrel and hot runner temperature as the last process used)
4. Open the mold at the max stroke and cover the cold half moving unit (protect the cores)
5. Start rotate the screw at reduced speed in order to move forward the sachets with its cream
6. Start feeding neutral PET
7. Purge the hot runner in mold open mode
8. Plasticize until the first processed cream will come out from the tip of the nozzles. This is shown by a larger diameter of the purge flow and a different consistency of the plastic, because the P&P cream+PET have different consistency and larger flow diameter.
9. Stop purging and keep on hold for 5 minutes (P&P cream+Pet will react inside the hot runner).
10. Purge all what is in the hot runner and barrel and keep feeding neutral PET.
11. Stop purging when clean PET will come out from the mold
12. Return to process temperatures
13. Restore production

See also the movie : <https://youtu.be/px6mQQmMhPU>