

SUPER NOVA®

Cleaning compounds for injection moulding and extrusion equipment

CONCENTRATE grades: (to be mixed with carrier polymer of lower or equal melt flow index of material to be removed)

	For materials with a processing temperature range of
CC LT CX	> 220°C 120°C-220°C For glassclear polycarbonate, pmma

Preparation of Compound:

Mix Supernova concentrate with carrier polymer of correct MFI in a ratio of 40% Supernova/60% carrier polymer. Increase (or decrease) ratio if more (or less) chemical activity is desired. For CX: 40% CX/60% PC.

Instructions for Injection Moulding equipment

1. Empty the machine of the production resin; raise nozzle and front zone temperature about 10°C- 15°C above production temperature. (Do not exceed the safe processing temperature of the production resin e.g. with **POM** and **PVC**).
Remove the hopper or feed system and make sure all production material is cleaned out of the feed area.
2. Flush the machine by running clean natural HDPE or a polymer of a higher viscosity than the material to be removed (quantity 1-4 times the nett cylinder content) to push most of the residual production resin out of the machine. Run the machine empty again (**optional, not applicable for CX**).
3. Load the machine with a full system volume of Supernova, feeding it directly into the throat. Fill the system until Supernova extrudes from the nozzle; keep the throat opening filled with Supernova.
4. Soak the system with the screw turning at a very low speed. Keep the throat full, reciprocating screws forward. Supernova will "drool" from the nozzle (the gas pressures of the chemical reaction are pushing it out). If the drooling stops, jog the screw to restore drooling, top off the throat with Supernova, and keep reciprocating screws forward. In case of a shut-off nozzle: open nozzle occasionally to prevent reciprocating screws forward. In case of a shut-off nozzle: open nozzle occasionally to prevent excessive pressure in cylinder
5. Purge the system empty of the Supernova material. If many black specks are seen as the last of the Supernova empties from the machine, another cleaning is needed. Raise the nozzle and front temperature another 10°C and repeat steps 3 and 4.
6. After setting the required temperature profile run the new production material through the system until all traces of Supernova are removed and start up with normal production.

Instructions for Extrusion equipment

1. Empty the extruder of the production resin. Remove screen packs for the purge if possible. **DO NOT REMOVE THE DIE**. Raise temperature of the front zone and the die about 35°C above production temperature (but do not exceed the safe processing temperature of the production resin). Make sure any venting- and/or vacuum openings are closed.
2. Flush the machine by running clean natural HDPE or carrier polymer (quantity: 1-4 times system volume) to push most of the residual production resin out of the machine. Run the machine empty again (**optional, not applicable for CX**).
3. Load the machine with Supernova, feeding it directly into the throat. Fill the system until Supernova mixture is seen emerging uniformly from the die.
4. Soak the system with the screw turning at minimum RPM for 10 to 15 minutes.
Keep the throat full of Supernova.
5. Purge the system empty. If the Supernova still contains many black specks, another cleaning is needed. Raise nozzle and front zone temperature another 10°C and repeat steps 3 and 4.
6. After setting the desired temperature profile run the new production material through the system until all traces of Supernova are removed and start up with normal production.

Special instructions available for: - Hot runner tools-Cleaning ULTEM

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