

INSTAPURGE™

CLEANING COMPOUND FOR INJECTION MOULDING AND EXTRUSION EQUIPMENT

What is InstaPurge™?

InstaPurge™ Commodity-Grade Cleaning Compound from Engineering Chemicals B.V. is a mechanical purging agent that dislodges the residues of previous production colours and resins that remain on cylinder walls, screws and dies after the system is run empty. It permits these residues to be quickly removed from the machine and is then readily purged from the barrel by the next production colour or resin. The system is back in production within minimum downtime.

Instructions for use in extrusion equipment

InstaPurge™ Cleaning Compound is recommended for the following situations:

- Conventional screw-type extruders. If equipped with a vented barrel, refer to Note 4.
- All thermoplastics processed at temperatures between 175°C and 332°C. For elevated temperatures see the Note 1.

Instructions for using InstaPurge™

1. **VERIFY** that the temperature of each heating zone is at an appropriate level (at least 175°C, but not above 330°C – see Note 1). It may prove helpful to raise the temperature of the die and any downstream plumbing about 30°C above operating temperature *provided that this can be done without exceeding temperature limitations of the equipment or the materials involved*. Otherwise, leave heats at operating temperature.
2. **EMPTY** the machine of the production resin as thoroughly as possible. Ensure that the hopper and feed throat are free of all production resin. Results may be enhanced by pre-flushing the system with clean natural resin. If you choose to pre-flush, refer to Note 2.
3. **LOAD** the hopper with the required amount of InstaPurge™ Cleaning Compound. In a typical purging situation, about one to two system volumes of InstaPurge™ should be needed. More or less material may be required, depending on such things as the difficulty of the application and the condition of the equipment. Start with one system volume and adjust as conditions dictate.
4. **FILL** the system with InstaPurge™ Cleaning Compound by rotating the screw. Use normal screw RPM until InstaPurge™ begins to emerge from the die – then increase to maximum safe RPM.
5. **PURGE** the system empty of InstaPurge™. If the system was heavily contaminated and contamination is still apparent as the last of the InstaPurge™ empties from the system, repeat steps 3 through 5.
6. **RUN** new production material through the system until all traces of InstaPurge™ are removed. Removal will be most thorough and efficient if maximum safe screw RPM are used. Then, begin normal production.

FOR TECHNICAL SUPPORT OF InstaPurge™ CLEANING COMPOUND,
CONTACT ENGINEERING CHEMICALS B.V.:
ON THE INTERNET AT www.e-chem.nl
BY E-MAIL AT e-chem@e-chem.nl
BY TELEPHONE AT +31 167 566984
BY TELEFAX AT +31 167 561118

ADDITIONAL NOTES AND INFORMATION

NOTE 1 – ELEVATED TEMPERATURES

It is recommended that you avoid subjecting InstaPurge™ Cleaning Compound to temperatures above 330°C. In this thermal environment some polymers used in InstaPurge™ may begin to decompose and release irritant vapours. This should not be an issue if exposure to temperatures near 330°C is brief (a few minutes). For regular use with materials processed well above 330°C, contact Engineering Chemicals B.V. to discuss alternative products.

NOTE 2 – PRE-FLUSHING

For some difficult changeovers, results may be enhanced by pre-flushing with clean natural resin before loading the cleaning compound. This will push most of the residual production resin out of the system. If you choose to pre-flush, use resin as stiff as, or stiffer than the production resin that is being displaced and of a resin type similar to either the initial or succeeding production resin. Flush at least one full system volume of material – but no more than 4 system volumes – through the system.

NOTE 3 – GRADE SELECTION

InstaPurge™ Cleaning Compound is available as a filled or unfilled product. The filler gives the product additional “scrubbing” effectiveness for difficult changeovers, but extensive use over a long period may cause wear in soft metal finishes. Engineering Chemicals B.V. recommends use of only the unfilled grade in extrusion equipment except in those cases where the die is to be removed from the system (any screens or filters must also be removed). The filled grade should also not be used where: (1) the equipment has narrow passages (less than 1.0mm) that might become blocked, or (2) the next production resin is of such low viscosity (e.g., flexible PVC, LDPE, etc.) that removal of a filled cleaning compound could be difficult.

NOTE 4 – VENTED BARRELS

In the case of extrusion systems equipped with vented barrels, the vents should be manually cleaned and closed with a cap. While filling the extruder with InstaPurge™ the screw RPM should be varied to ensure complete cleaning of decompression zones.

NOTE 5 – OPERATING PRINCIPLES

InstaPurge™ Cleaning Compound gains its purging effectiveness from three factors:

- The proprietary formulation incorporates ingredients that work in combination with the high level of agitation induced during the purging process to dislodge contaminants.
- The formula includes resins and other ingredients that are effective in providing mechanical “push” over a wide temperature range.
- An exclusive ingredient in InstaPurge™ causes it to be much less tenacious than other resins of similar viscosity in its adhesion to internal metal surfaces.

The logo for Engineering Chemicals B.V. features the company name in a bold, blue, sans-serif font. The text is slanted upwards from left to right. The word 'Engineering' is positioned above 'Chemicals'. The logo is set against a white background with a thin blue horizontal line above and below the text.

ENGINEERING CHEMICALS B.V.
Van Andelstraat 7
P.O.Box 59, 4650 AB Steenbergen, Holland
Tel:+31(0)167 566984 Fax+31(0)167 561118
E-mail:e-chem@e-chem.nl