

# V-PURGE

**Purging Compound for Hot Runner Systems  
Screws and Barrels**

**“A” Formulation**



**V-Tek** Molding  
Technologies, Inc.

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# ***V- PURGE “A”***

## **Ready-to-Use Purging Compound Food contact certified**

**V-PURGE “A”** is a specially designed cleaning compound that comes premixed in a ready-to-use pellet form. It cleans black specks and deposits from - screws, barrels, nozzle(s) and externally heated hot runners. You can obtain great results when doing periodic cleaning or color changing for all thermoplastics resins such as:

### **All Purpose Usage**

With working temperature from **374° F to 608° F (190° C to 320° C)**

### **How V-Purge works:**

- **V-PURGE** is nonabrasive and works through a chemical reaction. Color, incrustation, black specks and rust are softened, removed and ejected from the press through an innovative chemical process.
- Expanding agents are added to the new formula, which allow the compound to be more efficient even in difficult to clean situation.
- **V-PURGE** cleans at the same processing temperature of the previous production material.
- **V-PURGE** is recommended for injection molding machines, extruders and hot runners.

### **Benefits:**

- Only a small quantity is required (One full barrel)
- Non-Toxic
- No soak-time required
- Easy-to-use and efficient in cleaning process
- No more wasting of materials or loss of production time
- Odorless...does not produce gasses of any kind
- Does not contain solvents, therefore it will not ruin any equipment
- If used frequently, **V-PURGE** will preserve equipment from steel oxidation by forming a protective, anti-adherent layer which makes the next cleaning process quicker and easier
- All components are qualified as **GRAS** (Generally Recognized As Safe) by **FDA**

### **Suggestions:**

- A second run may be required to fully purge an older or overused machine.
- It is highly recommended that the V-PURGE container be properly sealed after each use. The forming of small clots of sticky substance may occur due to moisture. Please note that this will not alter the effectiveness of the product.

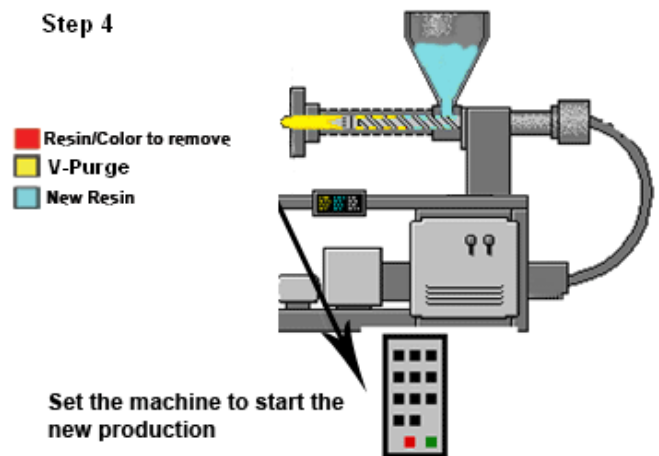
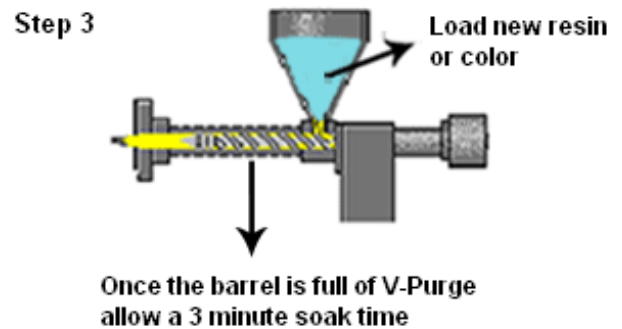
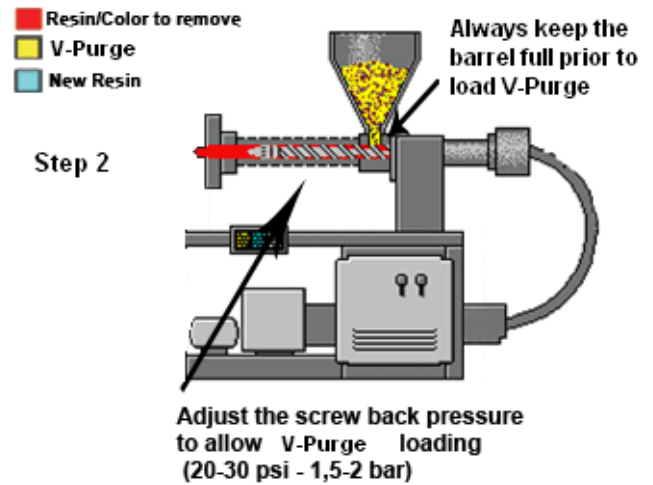
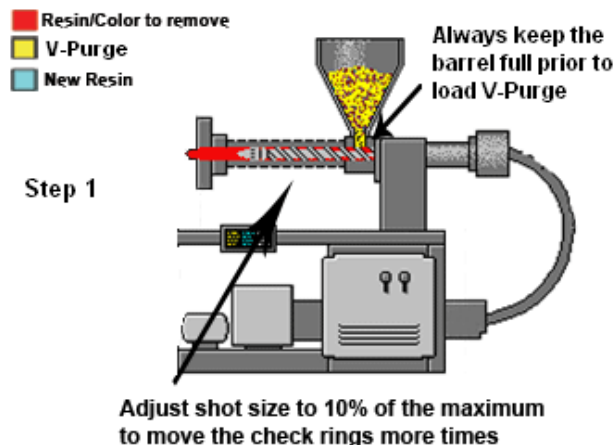
## Directions for Use:

### Use with Injection Molding Machines:

- Run the machine with a natural grade of plastic resin that you want to purge out
- Adjust the screw back-pressure to allow the loading of V-PURGE (generally 20 to 30 psi)

**\*For larger machines (over 200Ton), we recommend reducing the shot size by 10-15% of the maximum shot size**

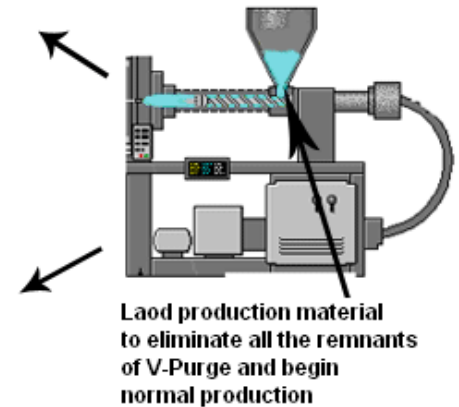
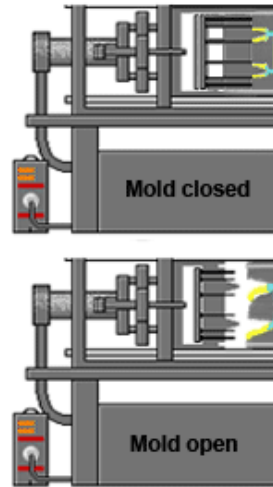
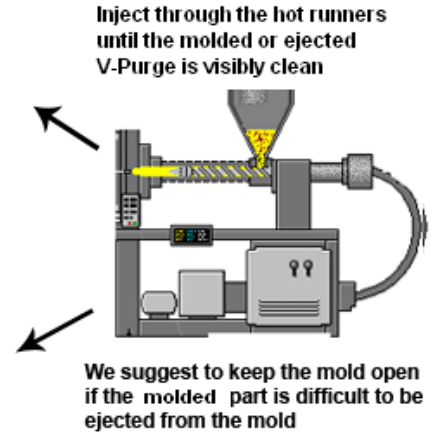
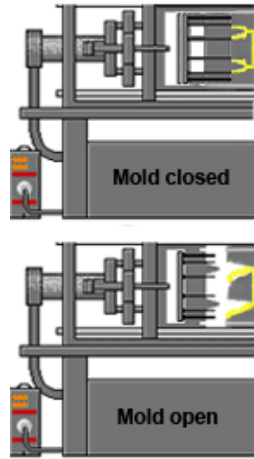
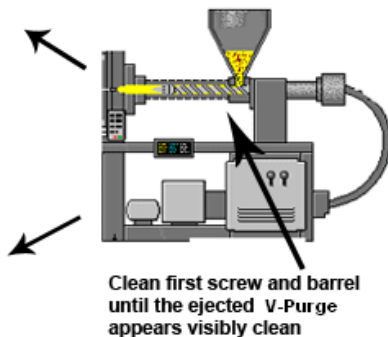
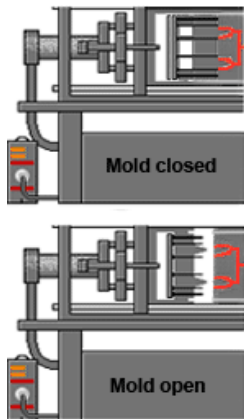
- **Without running the barrel empty**, load V-PURGE and begin injection cycle (we recommend loading one barrel full of V-PURGE for machines that are in good working condition)
- In hard to clean situations, a 3-minute soak time is necessary.  
**\*Do not soak longer than 3 minutes**
- A higher injection speed during purging helps to clean the nozzle.
- When the previously loaded quantity of V-PURGE is used up, load machine with the next production material. It is important **not to run the barrel empty** to improve the performance of V-Purge.
- Continue running machine for a total of 4-5 full shots to eliminate remnants of V-PURGE within the machine.
- Begin normal production



## Use with Hot Runners:

- Clean first screw and barrel using the V-PURGE™ A” grade until the ejected V-PURGE appears visibly clean ejecting V-PURGE on the side.
- Start to make injection thru the hot runners with the mold close or open until the ejected V-PURGE appears visibly clean (we suggest keeping 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 20-30°C (30-40°F) and to increase the injection molding cycle time.
- Continue molding until the molded parts appear visibly clean (we suggest to perform at least 4 injection cycles).
- Load neutral or production material to eliminate the remnants of the V-PURGE within the machine.
- Begin normal production.

- Resin/Color to remove
- V-Purge
- New Resin



**Safety:** Purging should be performed with purge guards closed and proper face shield, gloves and long sleeve clothing.

# MATERIAL SAFETY DATA SHEET

(ISSUE DECEMBER 17<sup>th</sup>, 2007)

## 1. Identification elements of the compound and company

### 1.1 Compound identification elements

denomination **V-PURGE "A"**

### 1.2 Company identification data:

USA

V-Tek Molding Technologies, Inc.  
1605 W. Algonquin Rd.  
Mt. Prospect, IL 60056  
Tel (847) 952 9420  
Fax(847) 808 0391

e-mail : info@v-tekmt.com

Website: www.v-tekmt.com

### 1.3 Urgent information

Contact person Dirk Vander Noot

## 2. Composition/ Agents Information

2.1 Chemical features: the detergent mixture V-PURGE contains inorganic and inert salts and other components that are confidential. All components are GRAS qualified (generally recognized as safe) by the FDA.

2.2 Product description: blend of additives in a olefin resin

2.3 Dangerous components: none

## 3. Dangers / Warning

3.1 Risk description: molten plastic or purging compound can cause severe burns.

3.2 Special information of particular risks for humans and environment: none

## 4. Medical First Aid Information

### General Information

4.1 By inhalation: no particular precaution is required

4.2 By accidental contact with eyes: in case of contact with a melted polymer, rinse out with running water seek medical attention immediately

4.3 By accidental contact with skin: in case of contact with a melted polymer, rinse with running water seek medical attention immediately

## 5. Fire Precautions

5.1. Suitable extinguishing equipment: atomised water jet, extinguish dust, sand, foam, carbon dioxide

5.2 Extinguish material unsuitable for safety reasons: according to our present knowledge there is none

5.3 Dangers that may arise from the substance, compound, combustion or emission of gases: Carbon monoxide fumes may be emitted when combustion occurs with polymeric substances

5.4 Safety equipment for fire fighters: use respirator in unventilated area

## 6. Measures for accidental spills

6.1 Personal precautions - no particular precaution is required

6.2 Environment protection - comply with local regulations

6.3 Cleaning procedures: use of mechanical equipments for cleaning

## 7. Handling, storage and usage

7.1 handling: handle as a thermoplastic resin. Before introducing V-PURGE in the machine always read the related MSDS of the product in which V-PURGE will be used.

7.2 Storage: store in a cool, dry and well ventilated area. Ensure that the V-PURGE container is sealed after removing the necessary quantity to be used. A sticky substance may form inside the container but will not alter the effectiveness of the product.

## 8. Exposure Control/Individual Protection

8.1 General precautions:  
When cleaning the press or the extruder, follow the same precautions as if working with melted polymers

8.2 Respiratory system protection  
When cleaning the press or the extruder follow the same precautions as if working with melted polymers

8.3 Hand protections  
When cleaning the press or the extruder follow the same precautions as if working with melted polymers

8.4 Eye protection  
When cleaning the press or the extruder follow the same precautions as if working with melted polymers

## 9. Chemical and physical properties

Physical state solid granules  
Odour - odourless

Ph:	N/A
Boiling point from:	N/A
Melting point from:	70 °C
In flammability point from:	>300 °c
Ignition temperature:	>450 °c

Explosive properties:	none
Combustion properties:	none

Comparative density at 25° c:	0.70
gr/cc	
Solubility:	negligible
water solubility	
Thermal decomposition:	starts at 85°c

## 10. Stability and Reactivity

10.1 General information  
No dangerous reaction is known if storage and handling are performed in compliance with the instructions

10.2 Hazardous conditions: avoid temperatures higher than 80°c, **except** during the use of the product. Do not exceed the temperature of 320°c (608°f); in case higher temperatures are required, please contact the supplier.

10.3 Hazardous substances: none

10.4 Dangerous decomposition products  
If storage and handling are performed as per instructions: none

## 11. Toxicological information

11.1 General practices

On the ground of our present knowledge it is physiologically tolerable. According to our present knowledge, the product is neither alterable, carcinogenic or tetanal. Its components are "GRAS" by the FDA.

11.2 Acute toxicity  
Ld/lc50 values remarkable for classification

Ld50/ Lc50 (oral rat): >>10,000mg/kg

## 12. Ecological information

12.1 Biodegradability  
The polymeric element is not biodegradable (PE, PS, PMMA.....or as shown on the label)  
The remaining part is completely biodegradable.

12.2 environment effects  
None

12.3 Toxic effect

It is determined that there are no negative effects to fish

How to handle situation when product gets into water treatment plants

It is determined not to have any harmful effects on water treatment plants

12.4 More Ecological Considerations

Handle with care and correct usage so as to not cause any negative effects to the environment

13. Considerations for Proper Disposal

13.1 Disposal of the product or its residuals: it can be disposed by burning, landfill or according to city regulations

13.2 Container disposal: it can be disposed by burning, landfill or according to city regulations

14. Transport Information

14.1 There is no danger or restriction for any mode of transport

15. Regulations Information

15.1 Labelling in compliance with European (CEE) regulations: exempt

15.2 TSCA

All components/ingredients are listed under the TSCA (Toxic Substances Control Act) inventory

15.3 It is ROHS compliant

16. Hazardous Material Identification System (HMIS)

Health Hazard	0
Minimal	
Reactivity Hazard	0
Minimal	
Flammability Hazard	0
Minimal	
Unusual Fire and Explosion Hazard	
None	

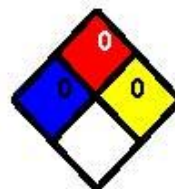
17. Additional Information

Material Safety Data Sheet Disclaimer

Material Safety Data Sheet should be kept and maintained because they provide necessary, helpful, and useful information on the properties of the chemical or chemical product. You should familiarize yourself with those properties, such as flammability, corrosiveness and toxicity as well as storage and handling information, before you work with the chemical. Also, it is vital to your personal safety that you are able to refer to that MSDS immediately in the event of an emergency such as a spill, fire or physical contact with the chemical.

V-Tek Molding Technologies, Inc. believes that the data contained herein are factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data is not to be taken as warranty or representation for which V-Tek Molding Technologies, Inc. assumes legal responsibility. They are offered solely for your consideration, investigation and verification. Any use of this data and information must be determined by the user to be in accordance with applicable Federal, State and local laws regulations.

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NFPA RATING

HEALTH	0
FLAMMABILITY	0
REACTIVITY	0
PROTECTIVE EQUIP.	

HMIS RATING