

# **Z CLEAN® E2002B**

Special Grade for Low Temperature Applications

## **Technical Bulletin**

**NISSHO Corporation, Inc.**

## 1. Introduction

CHISSO CORPORATION has developed a new purging agent “Z CLEAN E2002B” highly efficient in purging Extruders. Improved from the conventional “Z CLEAN E2002B” is provided with an increased releasing capability from the metallic surface of the mold. Especially it is excellent in removing coloring material from around the screw and optimum for changing colors at both ends of dies. We recommend it to be used for minimizing idle time and reducing scraps produced when changing the colors or the product.

## 2. Features

- Pelletized in milk-white with approximately 6 – 8 MI.
- **LDPE** (low-density Polyethylene) base; optimum for color change of LDPE.
- Easy to remove coloring pigment from around the screw.
- Quick to clean dirt from the feed section through both ends of the T-Die.
- Requires no removal of the wire mesh.  
Purging is possible with the wire mesh (200 mesh and under) as it is.
- If the machine is used in **Inflation Film** processing, color change can be done along with **Film Winding**.
- Produces no ill effect.

## 3. Applications

- **LDPE, Thermoplastic Soft Urethane, Polyolefin Elastomer Resin, Etc.**
- (for T-Die Film, Sheet, profiles) **Nylon 11, Nylon 12, Plasticized Polyvinyl Chloride.**

## 4. Range of Working Temperature

140° C - 300° C

285° F - 570° F

Standard Quantity of Z CLEAN E2002B

**Corresponding to 10 – 15 Minutes of Extrusion**

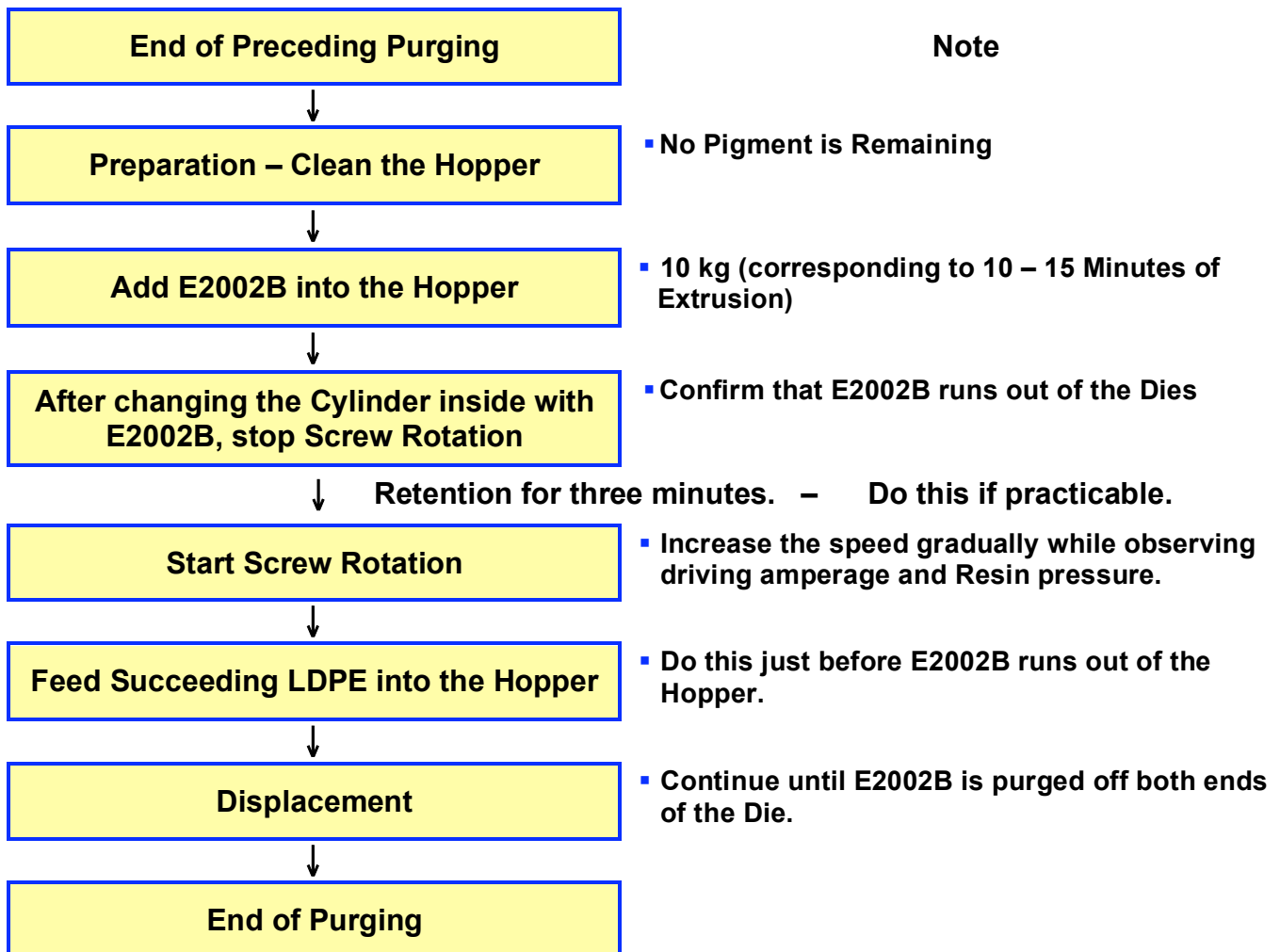
<b>Screw Dim. (mm)</b>	<b>40</b>	<b>65</b>	<b>90</b>	<b>120</b>	<b>150</b>
<b>Amount of Z CLEAN (kg)</b>	<b>3</b>	<b>10</b>	<b>20</b>	<b>40</b>	<b>80</b>

## 5. Precautions for Use

- **“Z CLEAN E2002B”** is an exclusive grade of purging agent for Extruders. When purging on **Injection Molding Machines**, be sure to use the grade other than this.
- When **“Z CLEAN E2002B”** is first applied, gradually increase screw speed while observing amperage of the drive.
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- When displacement purge is finished with **“Z CLEAN E2002B”**, stop the screw for 3 minutes for retention in order to obtain satisfactory result.

## 6. Procedure

**Machine Used:** 65 mm diameter T-Die. **Purging Case:** LDPE (Coloring) → LDPE (Natural)



**NOTE:** Supply the E2002B divided in 3 or so repeats intermittent purging. This will cause the flow to take different course within the machine, resulting in a greater effect of purging. The same can be said with displacement. Also, in order to increase viscosity, lower Molding Temperature before supplying the E2002B to the Hopper and after Purging, just before displacement with the succeeding Resin. Raise the Temperature back to the previous temperature. This will further enhance purging effect.

## 7. Examples of Purging

### Urethane Resin Purging with “Z CLEAN E2002B”

<b>Extruder</b>	50 mm diameter tube Extruder	
<b>Purging for</b>	Sealing – to prevent resin from burning when production is suspended.	
<b>Temperature</b>	180° - 220° C	
<b>Resin Used</b>	Soft Urethane Resin	
<b>Procedure</b>	<p>At the end of the operation of the day, a 1.5 kg of “Z CLEAN E2002B” is fed into the Hopper of the Machine, with the temperature unchanged and the wire mesh mounted as it has been. Then purging is performed and the screw is stopped. <u>The Screw is kept stopped for 9 hours Afterwards.</u></p> <p>The next morning, the first job is to carry out the displacement of “Z CLEAN E2002B” with Urethane Resin and after confirming no abnormality is found in the outer appearance of the tube, the operation is resumed.</p>	
<b>RESULT</b>		
<b>ITEM</b>	<b>E2002B</b>	<b>NO PURGING AGENT</b>
Urethane Consumption	1.5 kg	4.5 kg
Time for Displacement	20 minutes	60 minutes

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