

# **DE-COMP COMPOSITES, INC.**

## **COMPOSITE SHIELD**

**COMPOSITE SHIELD** is a high performance, semi-permanent release coating specifically formulated for use with advanced molding materials in industries requiring assured contamination free fail-safe processing. It also offers effective multiple release efficiency with a wide range of molding compounds. For NON-VOC release agents, request technical data on ENVIROSHIELD.

**COMPOSITE SHIELD** benefits are:

- True semi-permanent multiple release capability
- Ease of Application
- Fast Cure
- Controlled Release (reduces possibility of Pre-Release)
- No build-up on mold
- Thermal Stability (> 900°F/480°C)
- No Transfer
- Easy Recoat/Touch-Up

### **TYPICAL PROPERTIES**

<b>Appearance &amp; Odor:</b>	<b>Clear, thin, liquid with characteristic solvent odor</b>
<b>Carrier:</b>	<b>Aromatic Naphthas</b>
<b>Flash Point [C.C]:</b>	<b>&gt;100°F/38°C</b>
<b>Coverage:</b>	<b>1200 Sq. Ft./Gallon</b>
<b>Wt./Gallon:</b>	<b>7.29 lbs./Gallon</b>
<b>Cure Mechanism:</b>	<b>Chemical cross-linking and bonding following Solvent evaporation and reaction with atmospheric moisture</b>

**NOTE:** Product is moisture-sensitive. Container must be kept tightly closed when not in use.

### **USES**

**COMPOSITE SHIELD** is specified for releasing polyester, fiberglass, epoxy, graphite composites, polyimides, polybismaleimides, polyethylenes, polycarbonates, and other materials.

### **SURFACE PREPARATION**

Before applying **COMPOSITE SHIELD**, all previous waxes or oils should be removed using **SURFACE CLEANER**, and a suitable mold sealer should be applied. If surfaces have been coated previously with a semi-permanent release agent, it may be possible to simply solvent wipe, dry, and apply **COMPOSITE SHIELD** directly on top of existing surface. A test patch should be done to confirm this possibility.

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## COMPOSITE SHIELD (CONT.)

### MOLD CLEANING

**SURFACE CLEANER** is a combination of solvents specially blended to aid in the preparation of new and used molds/tools prior to treatment with **MOLD SEALERS AND RELEASE AGENTS**. It readily removes waxes and other surface contaminants without harming or dulling the working surfaces of the mold.

**SURFACE CLEANER** will also clean brushes and spray equipment used to apply various release products and elastomeric materials. For a **NON-VOC** cleaner, use our **WATERCLEAN**.

### MOLD SEALING

**SEALER GP** is recommended whenever a mold/tool is completely cleaned or the mold surface has been scratched locally after demolding a component. **SEALER GP** forms a thin protective shield that extends the life of the mold surface and reduces the amount of release agent required. Apply **SEALER GP** in accordance with Technical Data Sheet.

### HOW TO USE

1. Apply **COMPOSITE SHIELD** to a small area of the mold 1-2 sq. (.2 sq. m.) using a Bounty paper towel, clean lint free cloth, or hand sprayer.
2. While still wet, gently wipe dry using a separate clean Bounty paper towel or lint free cloth.
3. Make sure entire mold surface is coated in this manner, slightly overlapping the last coated area if you are applying in sections. Be certain that all contours are adequately coated.
4. Wait for a minimum of 15 minutes.
5. Apply a second coat of **COMPOSITE SHIELD** in the same way, and wait for a minimum 30 minutes before using mold. If application has been made to a warm surface, a shorter waiting period is needed. The use of heat (hot air, heat gun, and oven) can enhance performance. Cure times can be halved at ~250°F/120°C.
6. For touch up apply a single coat of **COMPOSITE SHIELD** as above and continue processing.

### STORAGE & SHELF LIFE

- When stored in a cool, dry area (Temp. < 90°F/32°C) in the original unopened container, the product will remain active for more than one year.
- Do not store at elevated temperatures. Product is moisture-sensitive, and will react with atmospheric moisture if exposed. Keep tightly closed when not in use.

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## **COMPOSITE SHIELD (CONT.)**

### **SAFETY DATA**

Material Safety Data Sheets (MSDS) are available for all products and should be consulted prior to use of product.

### **SHIPPING DATA**

DOT Shipping Name:	Resin Solution
DOT Hazard Classification:	Flammable Liquid
DOT I.D. Number:	UN 1866

### **PACKAGING**

COMPOSITE SHIELD is available in the following sizes:

- 1-U.S. gallon can
- 5-U.S. gallon pail
- 55-U.S. gallon pail

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