

Frekote® Release Agents for

# Advanced Composites Epoxy Systems

## YOUR APPLICATION

### PRODUCT TYPE

### APPLICATION

### FINISH

### FREKOTE® BRAND SEALER\*

### FREKOTE® BRAND SOLUTION

## Solvent Based / Semi-Permanent

Compression Molding / Casting / Vacuum Bagging

High-Slip

High Performance Composites

Matte Finish

Satin Finish

Gloss Finish

Gloss Finish

B-15™

B-15™

B-15™ or FMS™

B-15™ or FMS™

44-NC™

55-NC™

700™-NC

770-NC™

710-LV™

<b>Description:</b>	Release Agent	Release Agent	Release Agent	Release Agent	Release Agent
<b>Appearance:</b>	Clear liquid	Clear liquid	Clear liquid	Clear liquid	Clear liquid
<b>Application Temperature:</b>	59°F to 140°F (15°C to 60°C)	59°F to 140°F (15°C to 60°C)	59°F to 275°F (15°C to 135°C)	59°F to 140°F (15°C to 60°C)	59°F to 275°F (15°C to 135°C)
<b>Cure Time Between Coats at 70°F (21°C):</b>	10 to 15 minutes	5 minutes	5 to 10 minutes	5 to 10 minutes	5 to 10 minutes
<b>Final Cure Time at 70°F (21°C):</b>	3 hours	30 minutes	15 to 20 minutes	5 to 10 minutes	15 to 20 minutes
<b>Final Cure Time at 100°C:</b>	15 minutes	5 minutes	15 to 20 minutes	5 minutes	15 to 20 minutes
<b>Thermal Stability:</b>	up to 752°F (400°C)	up to 752°F (400°C)	up to 752°F (400°C)	up to 752°F (400°C)	up to 750°F (399°C)

## PRODUCT DESCRIPTION

### Frekote® 44-NC™

- No mold build-up
- No contaminating transfer
- High thermal stability

Frekote® 44-NC™ is a semi-permanent release polymer designed to provide multiple release for most molding processes with no contaminating transfer. Apply 3 to 6 coats to clean mold surfaces by wiping, brushing or spraying a thin continuous wet film. Allow 15 minutes between coats to dry. Curing of the final coat takes 3 hours at RT and can be shortened by baking the mold for 15 minutes at 212°F to 302°F (100°C to 150°C).

### Frekote® 55-NC™

- Fast cure time
- No mold build-up
- Reduced odor

Frekote® 55-NC™ is a semi-permanent release polymer designed to provide multiple release for most molding processes with no contaminating transfer. Apply 3 to 6 coats to clean mold surfaces by wiping, brushing or spraying a thin continuous wet film. Allow 5 minutes between coats to dry. Curing of the final coat takes 30 minutes at RT and can be shortened by heating the mold for 5 minutes at 212°F to 302°F (100°C to 150°C).

### Frekote® 700-NC™

- Mild odor
- Slower RT cure
- High slip

Frekote® 700-NC™ is a versatile release agent that provides a high slip where mold geometry problems are encountered. It cures at RT to give a high gloss finish to the molded parts. Apply to clean mold surfaces by spraying, brushing or wiping with a clean, lint-free, cotton cloth. Apply up to 4 coats, allowing 5 to 10 minutes between coats. Touch-up as necessary.

### Frekote® 770-NC™

- Low odor
- Faster RT cure
- High slip

Frekote® 770-NC™ is a versatile release agent that provides a high slip where mold geometry problems are encountered. It cures rapidly at RT to give a high gloss finish to molded parts. Apply to clean mold surfaces by spraying, brushing or wiping with a clean, lint-free, cotton cloth. Apply up to 4 coats, allowing 5 to 10 minutes between coats. Touch-up as necessary.

### Frekote® 710-LV™

- Fast RT cure
- Reduced VOC
- High slip
- Gloss finish

Frekote® 710-LV™ is a reduced VOC, semi-permanent release agent formulated specifically for release of high performance composite materials. Frekote® 710-LV™ will release thermoset and prepreg epoxies, polyester resins, and thermoplastic compounds. It cures quickly at room temperature giving a high gloss finish on molded parts. Frekote® 710-LV™ provides a non-contaminating transfer so that parts can be painted or bonded in other assemblies.





	Water Based / Semi-Permanent		Sacrificial	Helpful Hints
Filament Winding	Application Temp. 20°C to 30°C	Application Temp. 60°C to 205°C	Filament Winding	<p><b>Helpful Hints</b></p> <p><i>Frekote® B-15™ Mold Sealer is mostly used for metal and epoxy molds.</i></p> <p><i>Frekote® FMS™ Mold Sealer is mostly used for polyester molds.</i></p> <p><i>Frekote® PMC™ is a universal cleaner prior to application of Frekote® Release Agents.</i></p> <p><i>Refer to page 12 for more info.</i></p>
Gloss Finish	Matte Finish	Matte Finish	Gloss Finish	
B-15™ or FMS™	B-15™	B-15™	N/A	
<b>720-NC™</b>	<b>901WB™</b>	<b>C-200™ Aqualine®</b>	<b>EXITT™</b>	
Release Agent	Release Agent	Release Agent	Release Agent	
Clear liquid	White emulsion	White emulsion	Clear liquid	
59°F to 110°F (15°C to 43°C)	68°F to 95°F (20°C to 35°C)	68°F to 400°F (20°C to 205°C)	68°F to 140°F (20°C to 60°C)	
15 minutes	15 minutes	10 minutes	Solvent Evaporation (up to 60 seconds)	
15 to 20 minutes	3 hours	40 minutes @ 60°C (140°F) 20 minutes @ 100°C 15 minutes @ 120°C	Solvent Evaporation (up to 60 seconds)	
N/A*	10 minutes	20 minutes	N/A*	
up to 752°F (400°C)	up to 536°F (280°C)	up to 600°F (315°C)	up to 500°F (260°C)	

#### Frekote® 720-NC™

- Fast RT cure
- High slip
- Gloss finish

Frekote® 720-NC™ is a semi-permanent release agent formulated specifically for release of all cast polymer products and for releasing highly filled resins. It cures quickly at room temperature giving a gloss finish on finished parts. This product is also suitable for certain abrasive closed molding processes, such as RTM and filament winding, and is also ideal for use on highly porous mold surfaces.

#### Frekote® 901WB™

- Water based
- RT cure
- Multiple releases

Frekote® 901WB™ is a spray-on, water based emulsion developed for releasing high performance composite structures commonly found in the aerospace industry. It is cured at room temperature, allowing multiple releases and extremely low VOC content. This product, once cured, can be autoclaved at either 250°F (121°C) or 350°F (177°C). Apply a minimum of 4 thin box coats to a clean mold surface by spraying with a dry air source.

#### Frekote® C-200™ Aqualine®

- Water based
- No mold build-up
- No contaminating transfer

Frekote® C-200™ Aqualine® is a water based release agent which provides multiple release with no contaminating transfer. It gives no mold build-up and exhibits high thermal stability for all molding processes. Apply 4 coats to clean mold surfaces at a mold temperature  $\geq 140^\circ\text{F}$  (60°C). Allow each coat to dry before applying subsequent coats. Dry time may be decreased by using a fan or infrared lamp. Post cure the final film for at least 40 minutes at 140°F (60°C) or 20 minutes at 212°F (100°C).

#### Frekote® EXITT™

- Sacrificial coating
- Silicone based
- High gloss finish

Frekote® EXITT™ provides a superior high gloss finish on molds. It is not recommended for use with parts that need to be painted, bonded, or stained. This product was developed for use with urethane elastomer systems but will also release urethane foams, organic rubber compounds, and most specialty molding resins. No mold build-up, precise retention of mold detail.



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