

Frekote® Release Agents for

# Rubber Industry

## YOUR APPLICATION

SUBSTRATE

General Rubber Goods

Technical Rubber (i.e. Neoprene, Nitrile)

PRODUCT TYPE

Solvent Based

Water Based

Water Based

APPLICATION METHOD

Low Temperature Application

High Temperature Application

Highly Filled Elastomers

High Slip

## FREKOTE® BRAND SOLUTION

**815-NC™**  
(or 810-NC™ Aerosol)

**800-NC™**

**R-150™ Aqualine®** or  
**R-180™ Aqualine®**

**R-220™ Aqualine®**

**R-180™ Aqualine®**

<b>Description:</b>	Release Agent	Release Agent	Release Agent	Release Agent	Release Agent
<b>Appearance:</b>	Clear liquid	Clear liquid	White emulsion	White emulsion	White emulsion
<b>Application Temperature:</b>	68°F to 275°F (20°C to 135°C)	275°F to 446°F (135°C to 230°C)	140°F to 401°F (60°C to 205°C)	140°F to 401°F (60°C to 205°C)	140°F to 401°F (60°C to 205°C)
<b>Final Cure Time at 60°C:</b>	15 minutes	N/A*	30 minutes	25 minutes	30 minutes
<b>Final Cure Time at 150°C:</b>	N/A*	30 seconds	4 minutes	4 minutes	4 minutes
<b>Thermal Stability:</b>	up to 752°F (400°C)	up to 752°F (400°C)	up to 599°F (315°C)	up to 599°F (315°C)	up to 599°F (315°C)

## PRODUCT DESCRIPTION

### Frekote® 815-NC™ (or 810-NC™ Aerosol)

- RT cure
- Multiple releases
- No chlorinated solvents

Frekote® 815-NC™ and Frekote® 810-NC™ are semi-permanent release interfaces for molding rubber compounds. The multiple release, non-migratory system bonds to the mold surface to form micro-thin coatings. Spray apply 3 to 4 light, smooth uniform coats to clean mold surfaces. Use only a dry air source and ensure a continuous smooth wet film is achieved. Allow film to dry and cure prior to commencing molding.

### Frekote® 800-NC™

- No chlorinated solvents
- Maximum mold usage
- Reduced reject rates

Frekote® 800-NC™ is a semi-permanent release interface for molding rubber compounds. The multiple release, non-migratory system bonds to the mold surface to form micro-thin coatings. Spray apply 3 to 4 light, smooth uniform coats to clean mold surfaces. Use only a dry air source and ensure a continuous smooth wet film is achieved. Allow film to dry and cure prior to commencing molding.

### Frekote® R-150™ or R-180™ Aqualine®

- Fast curing
- High slip
- Minimum reject rates

Frekote® R-150™ Aqualine® and Frekote® R-180™ Aqualine® are both water based release agents which provide excellent slip properties. Recommended for the most difficult molding applications, especially for highly abrasive compounds. Apply by spraying to clean molds, pre-heated to ≥140°F (60°C). For warm molds 140°C to 248°F (60°C to 120°C), a minimum of 4 coats should be applied. For hot 248°F to 401°F (120°C to 205°C), new or porous molds, apply a minimum of 6 coats. Allow curing prior to production.

### Frekote® R-220™ Aqualine®

- Fast curing
- Excellent slip
- Releases most compounds

Frekote® R-220™ Aqualine® is a water based release agent. It offers excellent release and slip properties and is recommended for the most difficult molding applications, especially for high aspect ratio parts. Apply by spraying to clean molds pre-heated to ≥140°F (60°C). For warm molds, 140°F to 248°F (60°C to 120°C), a minimum of 4 coats should be applied. For hot 248°F to 401°F (120°C to 205°C), new or porous molds, apply a minimum of 6 coats. Allow curing prior to production.

### Frekote® R-180™ Aqualine®

- Fast curing
- High slip
- Minimum reject rates

Frekote® R-180™ Aqualine® is a water based release agent, which provides excellent slip properties. Recommended for the most difficult molding applications, especially for highly abrasive compounds. Apply by spraying to clean molds pre-heated to ≥140°F (60°C). For warm molds, 140°F to 248°F (60°C to 120°C), a minimum of 4 coats should be applied. For hot 248°F to 401°F (120°C to 205°C), new or porous molds, apply a minimum of 6 coats. Allow curing prior to production.





### Rubber-to-Metal Bonding

### Silicone Elastomer

#### Water Based

#### Solvent Based

#### Water Based

Highly Filled Elastomers

Ready to Use

**R-220™  
Aqualine®**

**R-120™ Aqualine®**

**HMT™ or  
HMT-2™**

**S-50™**

#### Helpful Hints

*Frekote® PMC™ is a universal cleaner prior to application of Frekote® Release Agents.*

*Refer to page 12 for more info.*

Release Agent

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Release Agent

White emulsion

White emulsion

Clear liquid

Yellowish liquid

140°F to 401°F  
(60°C to 205°C)

140°F to 401°F  
(60°C to 205°C)

140°F to 374°F  
(60°C to 190°C)

221°F to 401°F  
(105°C to 205°C)

25 minutes

30 minutes

5 minutes

N/A\*

4 minutes

4 minutes

1 minute

Instantly

up to 599°F (315°C)

up to 599°F (315°C)

up to 752°F (400°C)

up to 401°F (205°C)

#### Frekote® R-220™ Aqualine®

- Fast curing
- Excellent slip
- Releases most compounds

Frekote® R-220™ Aqualine® is a water based release agent. It offers excellent release and slip properties and is recommended for the most difficult molding applications, especially for high aspect ratio parts. Apply by spraying to clean molds pre-heated to ≥140°F (60°C). For warm molds, 140°F to 248°F (60°C to 120°C), a minimum of 4 coats should be applied. For hot (120°C to 205°C), new or porous molds, apply a minimum of 6 coats. Allow curing prior to production.

#### Frekote® R-120™ Aqualine®

- Fast curing
- No transfer
- High thermal stability

Frekote® R-120™ Aqualine® is a semi-permanent water based release agent which provides maximum release performance with high slip properties. Apply by spraying to clean molds, pre-heated to ≥140°F (60°C). For warm molds, 140°F to 248°F (60°C to 120°C), a minimum of 4 coats should be applied. For hot (120°C to 205°C), new or porous molds, apply a minimum of 6 coats. Allow curing prior to production.

#### Frekote® HMT™ or HMT-2™

- Multiple releases
- Minimum reject rates
- No contaminating transfer

Frekote® HMT™ and Frekote® HMT-2™ are both excellent solvent based release products designed for multiple release applications to hot molds ≥140°F (60°C). Frekote® HMT-2™ is less moisture sensitive than Frekote® HMT™. Brush or spray apply (ensure dry air source) 4 to 6 wet film coatings to clean mold surfaces. Allow a few minutes between coats for solvent evaporation. Cure is completed during solvent evaporation. Molding can commence immediately.

#### Frekote® S-50™

- Instant cure at elevated temperatures
- Excellent slip
- Maximum multiple releases

Frekote® S-50™ is a unique water based release agent which cures rapidly at elevated temperatures. It offers excellent slip properties and is suitable for the most demanding silicone rubber molding applications. Apply to clean mold surfaces by spraying and ensure a dry air source or airless spray system. Initially, 2 to 3 coats of full strength Frekote® S-50™ should be applied to condition the mold. Touch-up coats should only be applied to areas where poorer release is noticed.



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