

LOCTITE®

Loctite Industrial

Release Coatings for Rotomolding

Frekote®



A  Company

Choosing the Right Frekote® Product

From sealing to finishing, a wide variety of Frekote® products are available to make mold release a problem-free process. These include products ranging from solvent-based, for quick evaporation, to water-based to ensure a safe working environment.




















Get the job done- whatever the job - with Frekote! To find out exactly what you need, and why, please refer to the following chart:

	DESCRIPTION	BENEFITS	APPLICATION
Rotorelease™	Semi-permanent water-based mold release agent designed to be applied to molds at any temperature between room temperature and 400°F (205°C). It chemically bonds to the mold surface to form a thin, chemical resistant coating capable of releasing all thermoset composites.	<ul style="list-style-type: none"> • High thermal stability • No contaminating transfer • Reduced reject rate • Freeze thaw stable • No mold build-up 	At mold temperatures of less than 104°F (40°C) apply six coats, allowing each to dry before applying subsequent coats. When mold temperatures are greater than 104°F (40°C), reduce the number of coats to four. Allow at least 40 minutes for curing at 140°F (60°C), 20 minutes at 212°F (100°C) or 15 minutes at 250°F (120°C).
44-NC	Frekote 44-NC forms a microthin, non-migratory semipermanent release film that chemically bonds to the mold surface when applied at up to 140°F (60°C).	<ul style="list-style-type: none"> • High thermal stability • No contaminating transfer 	The mold must be clean and free from other release agents or contaminants prior to applying Frekote 44-NC. Apply four to six coats by wiping or spraying a thin continuous wet film. Allow 10-15 minutes between coats for solvent evaporation. Curing of the final coat takes three hours at room temperature and can be shortened by baking the mold for 15 minutes at 212-250°F (100-150°C).
770-NC	Frekote 770-NC is a versatile semi-permanent release agent that provides slip where mold geometry problems are encountered. It cures at room temperature to give a high gloss finish to the molded part.	<ul style="list-style-type: none"> • High gloss • High slip • Room temperature curable 	Initially apply two or three coats of Frekote 770-NC, allowing up to 15 minutes after each application for complete solvent evaporation. Molding should not be attempted until the film feels dry, not tacky, to the touch.
B-15 Sealer	Frekote B-15 Sealer is designed to be used to reduce or eliminate porosity problems in metal tooling. B-15 provides an excellent base coat for most Frekote mold release products.	<ul style="list-style-type: none"> • Seals mold porosity, scratches or imperfections • No contaminating transfer 	Frekote B-15 can be applied to mold surfaces by spraying, brushing, dipping, or wiping with a clean lint free cotton cloth. Apply two coats, allowing 30 minutes between coats for solvent evaporation. Allow 24 hours at room temperature or one hour at 200°F (94°C) for curing.
PMC	Frekote® PMC is a special blend of solvents designed to clean metal mold surfaces as well as brushes and equipment. PMC is highly recommended for preparing mold surfaces prior to application of Frekote Mold Release Agents.	<ul style="list-style-type: none"> • Enhances mold release performance 	PMC should be applied to the mold surface with a clean cotton cloth. As the cloth becomes saturated, dispose of it and use a new cloth. Repeat process until wax residue is removed. Wipe dry. The mold is then ready for application of Frekote B-15 Sealer or release.

Product Compatibility

This chart is a general guide to selecting the correct Frekote release agent for specific molding compounds. Frekote products will release more than one polymer type. The following processing variables are important factors in the selection of the optimal release:

- Mold and part geometry
- Desired surface finish
- Molding temperature

	LLDPE	LDPE	MDPE	HDPE	XLPE	PP	NYLON
Rotorelease™							
44-NC							
770-NC							

Troubleshooting Guide

PROBLEM	CAUSE	REMEDY
Complete failure to obtain release	• Insufficiently cleaned mold surface. Frekote unable to cure onto mold surface.	Strip out part. Thoroughly clean mold and re-apply Frekote.
	• Uncured Frekote film	Strip out part. Thoroughly clean mold and re-apply Frekote ensuring cure is achieved.
	• Precipitated and thus ineffective Frekote	Examine Frekote, if separation is present replace with fresh material. Clean mold and re-apply.
Poor release accompanied by white patches on parts	• Insufficiently cleaned mold surface. Frekote unable to cure onto mold surface resulting in Frekote resin transfer	Thoroughly clean mold and reapply Frekote.
Poor release accompanied by discolored blemishes on part	• Solvent-based Frekote contaminated by use of synthetic application cloths. Contaminants applied to tool surface	Thoroughly clean mold and reapply Frekote ensuring the use of non-synthetic application cloths.
Poor release accompanied by small particles of molding material left on mold surface	• Micro-porosity present in mold	Thoroughly clean mold and apply two coats of Frekote B-15 Sealer. Reapply Frekote topcoats.
Inability to achieve multiple release	• Unconditioned mold surface	Reapply Frekote frequently for initial production shift. Thereafter gradually decrease the frequency of application.
	• Separated and thus ineffective Frekote	Examine Frekote, if separation is present use fresh material.
Slow release	• Insufficiently cooled part	Increase rate of cooling part.
Good release but parts exhibit white blemishes	• Excessive Frekote applied to mold resulting in transfer	Thoroughly clean mold and reduce amount of Frekote applied.
Pock marks when molding XLPE	• Excessive Frekote applied and/or excessive heat applied during oven cycle	Reduce Frekote applied and/or reduce oven temp/length of time in oven.
Pock marks when molding nylon	• Excessive Frekote present causing nylon to slip on mold surface prior to curing	Remove excess Frekote with light abrasion.
Pigment streaking in parts colored using dry blending techniques	• Uneven Frekote film	Clean mold and reapply Frekote sparingly at a mold temperature of 150°F (70°C) minimum.
	• Dispersion problem with pigments	Consult pigment supplier.
	• Static build up in the mold	Consult pigment supplier.

For more information, call 800-562-8483

USA

Local Loctite Frekote Specialist

Nearest Authorized Loctite Frekote Distributor

Arrange an In-Plant Demonstration

Technical Product Assistance

800-562-8483

To Place an Order

877-617-3684

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Canada

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01-800-849-9412 (within Mexico)

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