



PLASTICS RESEARCH LABORATORIES, INC.  
MOLD RELEASES & PROCESS ADDITIVES

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## Technical Data Sheet



# W-4007

## Mold Release

### Product Description

Proprietary resin emulsion comprising modified polymers which crosslink and form a release film upon evaporation of the water carrier.

### Composition

Aqueous emulsion of proprietary resins and crosslinkers with various surfactants.

### Handling

Keep this water-based product from freezing and store below 100°F / 39°C.

Mix well before using.

### Features

Easy, spray or wipe on

No HAPS

No odor

### Uses

Specifically designed for rotational molding. Also suitable for molding rubber, thermoplastic and thermoset resins processed at temperatures up to 1000°F.

### Typical Properties

Solids	2 – 5%
pH	8.5
Color	Off White
Specific Gravity	1.00 @25°C
Viscosity	<15cps @25°C
Flash Point	Non Flammable
Shelf Life	12 months in original unopened package

### Mold Preparation

In order for the release to work effectively, the mold must be thoroughly cleaned to remove previously used mold release and other surface contaminants which may be incompatible.

New molds should be cleaned with solvent to remove protective lubricants and coatings.

Molds coated with other semi-permanent release agents can be stripped with WCX or CX-200HS mold strippers. It is important to thoroughly wipe down the mold with water to remove the residue left from the mold cleaner and dry completely before proceeding.

### Application Instructions

Apply using a clean, woven, lint free cotton cloth, or a high quality paper towel such as: Scott Shop Towels On A Roll®, Kimberly-Clark WorkHorse® rags or WypAll® wipes. Saturate the cloth or paper towels with release until completely wet, but not dripping, and wipe onto the mold. It is best if application is made to a warm mold surface (<180°F/82°C). Apply using smooth even strokes until the film is uniformly dry without wiping marks. Mold release may also be sprayed on. If hand pumped spray applicators are used rather than pressurized spray equipment, it may be necessary to wipe the mold to create a uniform film and to avoid puddling.

1-3 coats are recommended depending on the mold geometry, material being molded, and process. For more difficult mold shapes, use more coats.

Heat curing, or dry cycling, W-4007 prior to molding the first part will provide the best results, making it possible to achieve the maximum number of parts before re-application is required. When warpage of parts is a concern, or when molding parts with simple geometry. Dry-cycling W-4007 is not required.

Touch-up coats do not require heat cure or dry-cycling, however, application to a warm mold, and/or dry cycling will always provide stronger release film formation.

### Removal

Use WCX or CX-200HS to strip the release from the molds when desired. These strippers will remove plate-out, mold release build-up, color build-up, etc.

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