

# AXEL

PLASTICS RESEARCH LABORATORIES, INC.  
MOLD RELEASES & PROCESS ADDITIVES

50 Cambridge Drive, Monroe, CT 06468

Phone: 718-672-8300 • Fax: 718-565-7447  
E-mail: info @axelplastics.com

[www.axelplastics.com](http://www.axelplastics.com)

Technical Data Sheet

**XTEND**®  
Semi-Permanent Mold Releases

## XTEND 838

### Product Description

Proprietary resin solution comprising modified siloxane based polymers which crosslink and form a release film upon evaporation of the solvent carrier. Semi-permanent mold release.

### Composition

Proprietary resin solution in a solvent blend.

### Handling

MOISTURE SENSITIVE. KEEP TIGHTLY SEALED.  
CAUTION: Apply at ambient temperature. DO NOT APPLY TO HOT MOLDS (OVER 350°F/ 177°C)  
Minimize exposure to atmosphere.  
Do not return exposed material to can.  
Store above freezing and below 100°F / 38°C.  
DO NOT DILUTE

### Features

Superior ease of release. Self-cleaning. High gloss  
Wipe on, easy wipe off mold release  
Excellent slip with no pre-release or fish-eyes for gel coats.

### Uses

Especially suited for polyester resins, such as: Iso, ortho, DCPD, and PET, as well as vinyl-ester resins. Works well for both gel coated and non-gel coated parts.

### Typical Properties

Effective Ingredients	<2 %
Color	Straw
Specific Gravity	0.72 @25°C
Flash Point	<73°F / <23°C (C.O.C) TBD
Shelf Life	12 months in original unopened container
Solvents	Aliphatic Hydrocarbons
Odor	Paraffinic

### Mold Preparation

Mold surfaces should be clean and free of previously used mold releases and other surface contaminants.

New & Green Molds, or difficult release:  
Application of 2-3 coats of XTEND AMS Mold Sealer or XTEND XTR mold sealer is recommended prior to application of XTEND 838.

### Application

Apply 3-5 coats of XTEND 838 allowing approximately 15-20 minutes between each coat. New molds or porous surfaces may require additional coats. Increased cure times are recommended for mold temperatures below 65°F(18°C).

### Application Method

1) Apply to ambient temperature molds by wiping with a clean, woven, paper cloth such as the Scott Shop Towels On A Roll®, Kimberly-Clark WorkHorse® rags or WypAll® wipes, or a heavy-duty plain white paper towel. 100%, bleached white, cotton cloths can also be used.

2) Work in patches, applying a smooth, continuous light film over an area approximately 4'-6' square (0.3-0.8m<sup>2</sup>), or a size that you can conveniently wipe before it dries. A nice wet coat should be applied, but without runs, puddles, or drips.

3) As the 838 starts to flash off (3-15 seconds), use a clean, dry paper cloth, or cotton cloth to wipe the surface to a shine. This is done in three steps.  
a) Starting from the outside of the wet out area, and working towards the center, **wipe** over the area once. Then b) **flip** the cloth over to a dry side, and then c) wipe over the surface again using a hand **waving** motion. Firm, strong pressure is not necessary for a streak free, high gloss cosmetic (shine).

4) If any streaks remain after polishing the entire surface, simply re-wet the streaked area with 838 Mold Release and wipe the area vigorously, then wipe off with a second, dry cloth.

### Cure

A final cure of one hour is recommended prior to molding.

### Production

To maximize productivity, a break-in procedure can be beneficial. A good method is to apply a light re-wipe of release to the mold surface following the first pull, another after the third, and another after the fifth part. It is also a good idea to do more frequent touch ups on sheer edges, radius areas, and high wear sections. This will improve release performance and provide the best protection for your tool.

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Mailing: Box 77 0855 Woodside, NY 11377 USA  
Shipping: 58-20 Broadway, Woodside, NY 11377 USA  
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### Maintenance

Light monomer/styrene build-up can be removed with a quick, light wipe of acetone. Then a light coat of 838 should be reapplied.

If build up persists: Rub dirty areas with AXEL's CX-500 cleaner and wipe off with a clean dry cloth. Follow cleaning by wiping on 2 or more coats of XTEND 838, waiting 15 minutes between each coat. After 30 minutes, tape test to assure that the mold has been restored to good condition.

In extreme scumming conditions (usually associated with closed molding applications): Strip the tool with CX-525 (a cleaner especially formulated to remove styrene build up), CX-200HS stripper, or by buffing the tool with compound or polish. This will remove all scumming, buildup and the release. It will also condition the mold for break-in. Start from step one to recondition the mold.

### Removal

Use CX-200HS, followed by a water wipe and a good general purpose cleaner, such as AXEL's CX-500.

\* Due to the unique properties of this material, we require a clean closed application container. The container we find best suited, is a HDPE bottle with a shampoo squeeze style cap, where only a small amount of air is transferred. Gallons should be transferred into the type of container described above. At your request we can supply a sample and source. Drum quantity customers are required to use a desiccant drier attachment to assure proper release performance.

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