

# AXEL

PLASTICS RESEARCH LABORATORIES, INC.  
MOLD RELEASES & PROCESS ADDITIVES

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Technical Data Sheet

**XTEND**®  
Semi-Permanent Mold Releases

**ACS**  
Mold Sealer

### Product Description

Proprietary resin solution comprising modified siloxane based polymers which crosslink and form a protective coating for the mold surface while improving the longevity of the mold release coating upon evaporation of the solvent carrier.

### Composition

Proprietary resin solution in aliphatic solvent blend.

### Handling

MOISTURE SENSITIVE. KEEP TIGHTLY SEALED.  
CAUTION: Apply at ambient temperature, ideally above 65°F/18°C.  
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

A wipe-on/wipe-off mold sealer that offers extra mold protection and enhances mold release performance.

Especially for new, green, or recently compounded FRP molds.  
Recommended for treating mold repair areas.

### Uses

Mold sealer for composite and metal tooling.

### Typical Properties

Effective Ingredients	<2%
Color	Clear/Pale Yellow
Specific Gravity	0.722 @25°C
Flash Point	<75°F / <25°C (C.O.C)
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 sacrificial mold releases (like paste waxes, fluoropolymer releases etc.) and other surface

contaminants, like dust, dirt, residue from polishing or compounding.

NOTE: XTEND ACS sealer is compatible with most semi-permanent mold releases. Therefore, it is generally not required to strip the mold completely if a semi-permanent mold release system was in use.

### Application

**Apply 1 - 2 coats of XTEND ACS allowing 30-60 minutes between each coat. Allow a minimum of 60 minutes before applying mold release.**

Longer cure times between each coat and after the last coat is desirable, and should be considered when application is made at low temperature (below 60°F/15°C) or with very high humidity. It's also important that there is air flow over the mold while the mold is curing.

Good cure is also important when using new molds; molding resin with long cure times; or working over repaired areas.

**New Molds, or porous molds (or porous repairs) may require one or more additional coats of mold sealer.**

### 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 100%, bleached white, cotton cloths.

2) Work in patches, applying a smooth, continuous light film over an area approximately 4'-6' square (.3-.5sq m), or a size that you can conveniently wipe before it dries.

NOTE: Over application can increase the time it takes to buff the surface to a gloss.

3) After the small area is wet out with the ACS, take cotton or micro fiber cloth and lightly buff off the ACS. AXEL recommends three simple steps to accomplish this:  
1) WIPE: Wipe over the surface starting on the outside of the wet-out area and work your way in towards the center.

2) FLIP: Flip the cotton or micro fiber cloth over to provide a dry wiping surface

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3) WAVE: Using a waving motion (to reduce pressure, but to increase the buffing motion), work the cloth over the surface and the ACS should very quickly wipe to a shine.

NOTE: The first coat of ACS will apply easily. The second coat of ACS may show small smudges or streaks. These can easily be wiped clear by allowing the mold to sit for five to 15 minutes before wiping clear.

4) If any streaks remain after dry polishing the entire surface, simply use a paper cloth that is wet with sealer and wet the streaked area, then immediately wipe with the dry cloth.

#### **Cure**

Allow the coated mold to cure for 60 minutes minimum ambient temperature before applying release. Again, cooler shop temperatures require increased cure time. Overnight cure is recommended for new composite molds whenever possible. Also, it is recommended that the mold has some air flow over the mold as the ACS cures.

#### **Removal**

May be removed by abrading (polishing), or, if chemical removal is preferred, CX-200HS Mold Stripper or WCX water-based Mold Stripper are recommended.

\* 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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