

AXEL

PLASTICS RESEARCH LABORATORIES, INC.
MOLD RELEASES & PROCESS ADDITIVES

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Technical Data Sheet

XTEND™
Semi-Permanent Mold Releases

818+

Product Description

External mold release: An air-drying reactive resin solution that cures to provide a durable semi-permanent coating. Permits multiple releases without transfer at both ambient and elevated temperatures. A wipe on/leave on applied product.

Composition

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

Handling

MOISTURE SENSITIVE. KEEP TIGHTLY SEALED.
Minimize exposure to atmosphere.
Do not return exposed material to can.
Store above freezing and below 100°F / 38°C.
DO NOT DILUTE

Features

Easy, wipe on and leave on.
No polishing
High Gloss
No HAPS

Uses

Ideal for open molding, high yield applications such as tub/shower and boat hulls that require class "A" finishes. Molding polyester, vinyl ester and epoxy resin.

If XTEND 818+ is used on New or Green

Molds: Apply 2-3 coats of XTEND XTR Mold sealer or XTEND AMS Mold Sealer prior to application of XTEND 818+ Mold Release.

Typical Properties

Effective Ingredients	<2%
Color	Clear
Specific Gravity	0.720 @25°C
Flash Point	<73°F / <23°C (C.O.C.)
Shelf Life	12 months in unopened/original container
Solvents	Aliphatic Hydrocarbons Blend

Mold Preparation

New & Green FRP Molds:
Read AXEL publication FocusOn New & Green Molds.
Mold surfaces should be clean and free of previously used mold releases and other surface contaminants.

Application Instructions

Hand Application: Apply with a clean, woven, lint free paper towel, such as the Scott Shop Towels On A Roll, Kimberly-Clark WorkHorse rags or WypAll wipes, or a heavy-duty plain white paper towel.

Wet the paper towel with release until it is wet but not dripping. Gently squeeze the towel in to a ball to soak the 818+ throughout the towel. Wipe 818+ on to the mold surface using smooth even strokes. Apply a thin, uniform coating and allow the release to evaporate. Do not overwork the area or continue to wipe. Simply wipe on, and allow to dry.

- 1) When working on a large surface area, apply to one section at a time, working from one end of the tool surface to the other. 818+ can be applied in a straight line or in a circular motion. Care should be taken to have a small amount of overlap to ensure 100% coverage.
- 2) 3-4 coats of 818+ are recommended for a clean, well-conditioned mold. New molds and repaired molds should be handled with special care (see Focus On: New & Green Molds. One to two coats of XTR or AMS Mold Sealer are recommended.
- 3) Allow a minimum 15 minutes for each coat of release to dry and cure before applying the next coat. Low ambient temperatures (below 70°F / 20°C) may require longer cure times. At least a small amount of air movement is recommended to encourage solvent evaporation and cure.
- 4) Always use a fresh, clean cloth for each coat of release. If streaking occurs, replace your cloth with a clean one. Most streaks can be removed by waiting for the release to cure and then lightly buffing the surface with a clean, dry cloth or micro-fiber cloth.
- 5) 30 minutes cure time after the final coat is generally adequate. Once again, the longer you wait, the better. 60 minutes or more is recommended for below 70°F / 20°C or for difficult mold shapes/profiles.
- 6) 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 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.

Spray Application

Use an HVLP Spray gun (or similar) for spraying. Air lines must be moisture and contaminant free (use an air/water filter/separator). Please consult AXEL if you are not familiar with applying semi-permanents by spray before attempting.

Adjust spray equipment to deliver a light spray mist. Whenever possible, spray at 9-15" (20-40cms) from the mold surface. The spray pattern should be setup and adjusted using cardboard or craft paper to determine a completely atomized spray with as little over-spray as possible.

Apply 2-4 light to moderate coats depending on process and resin. Do not apply heavy coats. The coat should evaporate quickly and not run or puddle on the mold. Allow each coat to dry and cure before applying the next coat – this time will vary depending on the mold temperature.

Apply one coat of release after the first part. This will extend release productivity.

* Due to the unique properties of this material, we require a clean closed application container. The container we find best suited, is an HDPE bottle with a flip top 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.

Maintenance

If sticking begins: Wipe the problem area of the mold with XTEND 818+ to dissolve and remove residue. Continue molding. If the residue does not dissolve, the mold can be lightly cleaned with acetone. 818+ should be reapplied after any solvent cleaning.

If build up persists: Wipe off with AXEL's CX-500 Mold Cleaner. (This cleaner is designed to take off the residual buildup without removing all of the sealer and the 818+.) Then wipe on 2-3 coats of XTEND 818+, waiting 10 minutes between each coat and 30 minutes after the last coat.

In extreme resin build-up conditions (usually associated with closed molding applications): Strip the tool with CX-175 or CW-10NC. These products can remove all resin build-up, and the 818+.

Removal of 818+ can also be done with CX-200HS Mold Stripper, followed by a water wipe (and dry) and a good cleaning with AXEL CX-500 Mold Cleaner.

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