

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

Technical Data Sheet

XTEND™
Semi-Permanent Mold Releases

804

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.

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

CAUTION: Do not apply to hot molds (over 300°F/148°C)

Features

Easy, wipe on
No polishing required
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 resin.

XTEND 804 is not recommended for breaking in new molds or heavily repaired areas.

If XTEND 804 is used for New or Green Molds:

Apply 4-6 coats of S-19C allowing 30 minutes between coats and a minimum of 1 hour after the last coat. Apply 2 coats of release after the sealer has cured, allowing 15-30 minutes between coats and a minimum of 30 minutes after the last coat. **DO NOT APPLY ADDITIONAL COATS OF MOLD RELEASE.** Re-apply mold release after the first part is pulled.

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

Mold Preparation

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

Application Instructions

Hand Wiping

Apply with a clean, woven, lint free 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.

Wet the cloth with release until it is damp but not dripping. Wipe onto 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. Natural bristle brushes and most foam paint applicators can also aid in smoothing out the coatings or working them into textured or hard to reach areas. When working with sprayers or brushes, avoid pooling the release in any one area.

2) 4 coats of release are recommended for a clean well-conditioned tool. New & green tools should be handled with special care (see Focus On: New & Green Molds. At least 2 coats of S-19C sealer are recommended for new or reconditioned molds.)

3) Allow approximately 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 necessitate longer cure times.

4) Always use a fresh, clean cloth for each coat of release. If streaking occurs, replace your cloth with a clean one. Also make sure that the cloth is not too saturated, as heavy applications of release can streak (see FAQ's Semi-Permanent Mold Releases & FRP Molds). Most streaks can be removed by waiting for the release to cure and then lightly buffing the surface with a clean, dry cloth.

5) 30 minutes cure time after the final coat is applied is generally adequate. Once again, the longer you wait, the better.

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 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.

* 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.

Maintenance

If sticking begins: Wipe the problem area of the mold with XTEND 804 to dissolve and remove residue. Continue molding. If the residue does not dissolve, lightly work over the tool with a Scotchbright® pad wet with XTEND 804, then apply one coat of release.

If build up persists: Wipe off with AXEL's CX-500 cleaner and a Scotchbright® pad. (This cleaner is designed to take off the residual buildup without removing the base coat of release.) Then wipe on 1 to 2 coats of XTEND 804, waiting 10 minutes between each coat.

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 and by buffing the tool. This will remove all scumming, buildup and the release. It will also condition the mold for break-in. Start from step 1 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.

The key to easy, consistent releases is maintaining molds through balanced use of release and cleaner. To further optimize the closed molding process we also recommend using an internal mold release.

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