

AXEL

PLASTICS RESEARCH LABORATORIES, INC.
MOLD RELEASES & PROCESS ADDITIVES

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Technical Data Sheet

XTEND™
Semi-Permanent Mold Releases

1110

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

Features

Easy, wipe on
No polishing required for non-high gloss applications
High Gloss
No HAPs

Uses

XTEND 1110 is a versatile semi-permanent ideal for use with difficult gel coats, resins, or difficult mold geometries where a high gloss is required. Solid Surface, RTM, and RTM Light are a few examples.

For initial application, 2 coats of XTEND XTR mold sealer is recommended prior to application of XTEND 1110.

Typical Properties

| | |
|-----------------------|--|
| Effective Ingredients | <2% |
| Color | Colorless, Clear |
| Specific Gravity | 0.72 @25°C |
| Flash Point | <73°F / <23°C (C.O.C.) |
| Shelf Life | 12 months in unopened/original container |
| Solvents | Aliphatic Hydrocarbons Blend |

New Molds

Read AXEL publication Focus-On New & Green Molds.

Conditioned & Metal Molds

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

AXEL strongly recommends the use of a Mold Stripper/Remover when buffing compounds or polishing compounds are used that contain animal fats, silicones, (pine) oils, etc. AXEL's water-based WCX or solvent based CW10-NC can be used. After thoroughly removing the buffing compounds, a hot water wash (then dry), and then cleaning with AXEL CX-500 should be completed prior to applying AXEL XTR Mold Sealer and AXEL XTEND 1110

NOTE: Best gloss is achieved by wipe on/wipe off application. If lower gloss is acceptable, this release can be wiped on and simply allowed to dry.

Application Instructions for XTEND 1110:

Wipe On & Wipe Off.

Apply with two clean, woven, lint free paper towels, folded together into quarters, such as the Scott Shop Towels On A Roll®, Kimberly-Clark WorkHorse® rags or WypAll® wipes. When using a cloth material, 100%, bleached white cotton should be used (no man made fabrics). Wet the paper towel with 1110 until it is nearly 100% wet but not dripping. Squeeze the towel in to a ball to soak the 1110 throughout the towel. Wipe onto mold surface using smooth even strokes. Apply a wet looking, uniform coating. Note that the 1110 should not run or puddle. Once the 1110 starts to evaporate, take a second, clean, dry, 100% bleached cotton cloth, and lightly wipe to a shine using a circular motion. Do not heavily buff or aggressively wipe off the 1110 – it should wipe to a shine with a light wipe or two of the dry cloth.

- 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.
- 2) 3-6 coats of release are recommended for a clean well-conditioned tool. New tools and repaired area should be handled with special care (see Focus On: New & Green Molds. At least 2 coats of XTR sealer are recommended for new and repaired molds.)

3) Allow a minimum of 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.

Application Instructions for XTEND 1110: Wipe On, Leave On (when high gloss is not needed)

Apply with two clean, woven, lint free paper towels, folded together into quarters, 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 damp but not dripping. Squeeze the towel in to a ball to soak the 1110 throughout the towel. Wipe onto mold surface using smooth even strokes. Apply a uniform coating and allow the release to evaporate.

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2) 3-6 coats of release are recommended for a clean well-conditioned tool. New tools and repaired area should be handled with special care (see Focus On: New & Green Molds. At least 2 coats of XTR sealer are recommended for new and repaired molds.)

3) Allow a minimum of 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. (see FAQ's Semi-Permanent Mold Releases & FRP Molds). Most streaks can be removed right away by re-wetting the streak and then buffing or wiping immediately after. Or, if the streak is missed it can be removed by waiting for the release to cure and then lightly wiping or buffing the surface with a clean, dry cloth.

FINAL CURE:

60 minutes cure time after the final coat is applied is generally adequate. Once again, the longer you wait, the better. Temperatures below 70°F/20°C should cure for 60 to 120 minutes. Cure time for new molds or repaired areas should be 60 minutes minimum and preferably longer. Additional cure time is also recommended for difficult mold geometries.

To maximize productivity, a break-in procedure can be beneficial. A good method is to apply a light coat 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. AXEL always recommends one touch-up (re-application) after the first part is molded.

* 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 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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14/10/29