



50 Cambridge Drive, Monroe CT 06488 USA
+1 203.590.2000 | +1 800.332.AXEL
www.axelplastics.com

Technical Data Sheet

XTEND® 1110EP External Mold Release

Product Description:

XTEND 1110EP is a semi-permanent external mold release that works exceptionally well for epoxies and other thermoset composite resins.

Provides multiple releases without transfer at both ambient and elevated temperatures.

Use:

Epoxies, Polyesters, Vinyl-esters, Phenolics – most thermoset resins and cyanate ester.

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.

Instructions for Use:

For initial application, 2 coats of XTEND UMS mold sealer is recommended prior to application of XTEND 1110EP. For further performance and durability, AXEL XTEND PR-ACP or PR-GCP Mold Primer is recommended prior to applying a Mold Sealer or 1110EP.

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 such as Aqua-Clean 220 or 521 to remove prior mold release system or buffing / polishing compound residue. After thoroughly stripping mold, a hot water wash (then dry), and then cleaning with AXEL CX-500 Mold Cleaner should be completed prior to applying an AXEL Mold Sealer and AXEL XTEND 1110EP.

NOTE: Best gloss is achieved by utilizing a wipe on/wipe off application. If lower gloss is acceptable, this release can be wiped on and quickly wiped off (not buffed). The wipe off should be done with a clean, dry cloth.

Wipe On & Wipe Off Application:

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 1110EP until it is nearly 100% wet but not dripping. Squeeze the towel into a ball to soak the 1110EP throughout the towel. Wipe onto mold surface using smooth even strokes. Apply a wet looking, uniform coating. Note that the 1110EP should not run or puddle. Once the 1110EP is mostly evaporated, take a second, dry cloth or paper towel and lightly wipe over the entire area.

FEATURES:

Easy wipe on, light wipe-off	No HAPs
Quick application	Can apply by hand/cloth to at least 160°C/320°F
Easily spray applied with no wipe off necessary	Low odor

TYPICAL PROPERTIES:

Effective Ingredients	>2%
Color	Colorless, Clear
Specific Gravity	0.700-0.730
Flash Point	<73°F / <23°C (C.O.C.)
Shelf Life	12 months in unopened/original container
Solvents	Aliphatic Hydrocarbons Blend

XTEND 1110EP can be applied by hand with a thick cloth or folded paper towels 3-5 coats of release are recommended for a clean well-conditioned tool. New tools and repaired areas should be handled with special care.

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.

It is not recommended to wipe on and leave on the XTEND 1110EP as it will leave tiny drops (pin head sized dots) on the surface of the mold. XTEND 1110EP should always be wiped on and at least lightly wiped off, as described above, to ensure an even coating of the 1110EP is present on the mold.

** 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.*

Spray Application:

Use an HVLP or similar spray gun suitable for spraying low viscosity solvents. 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 approximately 9-15" (roughly 20-45 cms) away from the mold surface. The spray pattern should be set up and adjusted using cardboard or craft paper to determine a completely atomized spray with as little over-spray as possible.

Apply 3-5 light to moderate coats depending on process and resin. Do not apply heavy coats. Allow each coat to dry and cure before applying the next coat – this time will vary depending on the mold temperature.

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.

AXEL always recommends one touch-up (re-application) after the first part is molded.

Shop Towels On-a-Roll®, WypAll® Wipes and Work Horse Towels® are registered trademarks of Kimberly Clark, Inc.

Review SDS before use.