



Amazing Clear Cast Plus

Clear Coating & Casting Epoxy

Product Description:

Alumilite's Amazing Clear Cast Plus is a clear casting and coating system that cures to a rigid, durable, clear plastic coating. Amazing Clear Cast Plus provides all of the same features of the Amazing Clear Cast including a easy to use 1:1 mix ratio by volume, a brilliant high-gloss durable surface, is FDA compliant, but now brings the added benefit of improved UV resistance. This added feature makes this system ideal for coating over items that are white or have white backgrounds. Use for coating or finishing applications such as bar tops, taxidermy scenery, trays, artwork, crafts, and all sorts of other clear casting or coating applications. Amazing Clear Cast Plus can be colored with Alumilite dyes, alcoholic inks, or other non-water base colorants. Complies with FDA 21 CFR 175.300

NOTE: Epoxies in their unmixed state will naturally develop a yellow hue with time. This hue will not affect curing but may dull the crispness of white backgrounds.

Physical Properties:

Color	Clear
Mixed Viscosity (cps)	3,000
Hardness, (ASTM D-2240) Shore D	75-77
Specific Gravity	1.08
Shrinkage (in/in)	.003
Tensile Strength (ASTM D-638) (psi)	3,700
Elongation (in/in)	15%
Heat Deflection (ASTM D-648) (Degrees F)	100°F

General Properties:

Color	"A" Side	Translucent Lt Blue
	"B" Side	Clear
Mix Ratio	1:1 by vol.	
Shelf Life	1 year	
Open Time at 75 Degrees F (100g mass)	30-40 minutes	
Tack-free Time at 75 Degrees F (100g mass)	12-48 hours	
Full Cure Schedule	48-72 hours	

Packaging: 16 oz

32 oz
1 gal
2 gal
10 gal
Drum Kit

Instructions

Before Starting

Make sure your work area is appropriate for measuring, mixing, and pouring casting resins that can and will stain any porous materials such as carpet and clothing. Also make sure to use and store materials in an area where children cannot reach or access.

Mixing

The mix ratio of the Amazing Clear Cast Plus is 1:1 by Volume. Using a graduated mixing container, measure out equal parts per side. Varying the mix ratio will alter the cure and change the physical properties in a negative ways such as tackiness or uncured surfaces. When mixing multiple batches, it helps to have a dedicated side A and side B measuring cup, which are then added to a larger mixing container. After the materials have been poured together, mix thoroughly (keeping the stir stick in contact with the bottom of the cup - reduces air from being introduced into your resin) for approximately 3-5 minutes. Make sure to scrape the sides and the bottom of the mixing cup and continue to mix until no swirls are seen. Once no swirls are seen, mix for an additional 2 minutes. Because of the differences in viscosity between the two parts, mixing takes extra time.

When Casting Items - Mold Type

It is best to use platinum base silicone rubber molds when pouring Amazing Clear Cast Plus. New tin base silicone rubber molds should be conditioned to clean and crosslink any uncured tin that is on the surface of the mold that may contaminate the clear casting. Your mold must have a high gloss surface to produce a see through/glossy appearance in your casting. If the surface of your mold has a matte finish, your clear casting will also have that same appearance which will make a frosty appearance on your cast piece. So be sure your master is highly polished without any blemishes prior to molding. Then your mold will reproduce the quality of the original and your finish piece will look just as your original.

Pouring into molds

Once the material is thoroughly mixed, pour the resin slowly down the side of your mold cavity. Tilting your mold will prevent the resin from splashing in the bottom of your mold and creating unwanted air bubbles that would then need to find their way to the top of the mold. Similar to tilting your glass as you pour a beverage rather than letting it splash/cavitate off the bottom creating air bubbles.

Squeezing the brim of the cup to form a point allows you to pour a smaller/slower stream of resin into your mold controlling the flow and reducing the chance of unwanted air bubble entrapment against the surface of the part.

If your mold has undercuts, pour enough resin into the mold to fill it half way. Then, tilt and rotate the mold in the opposite direction of the undercut to allow the air to escape up the side of the mold. Squeezing or burping the mold at the same time will also help relieve the air trapped in the undercut and allow the bubbles to release from the mold surface. Once you see air bubbles come to the surface of the resin and you can be confident you have removed the air from the undercut, simply top off the mold by pouring the remaining resin into the mold.

Open Time

Amazing Clear Cast Plus has work time of 30-40 minutes based on 100 gram sample at 75°F. Larger amounts of mixed resin will shorten your work time as will warmer ambient temperatures. Mixing large volumes similar to 1 gallon volumes, you can expect the open time to be cut in half.

Casting thickness:

When used at room temperature (70-75°F), Amazing Clear Cast Plus will self-level to approximately 1/8 inch. Maximum casting thickness is 3/8 inch. Additional layers can be poured in as soon as 4-6 hours and up to 12 hours. After 12 hours, resin should be lightly sanded and solvent wipes before pouring next layer.

Surface Preparation:

All porous surfaces such as wood should be sealed prior to pouring the flood coat of epoxy. This can be done by mixing up a small batch of ACC+ and then squeegee it over the surface. This should be a thin skim coat. Surfaces with extreme porosity may soak up initial seal coat requiring a second seal coat application. Wait 4-6 hours before applying subsequent layers or flood coat.



Color – Dyes & Dusts

Amazing Clear Cast can be dyed or pigmented using non-water base dyes. Alumilite offers a line of translucent dyes in standard colors that react/crosslink chemically with the resin to achieve beautifully translucent cast pieces with no worry of leaching or color ever coming out of the cured piece. Alumilite's Fluorescent, White, and Black are opaque, as they contain filler. Use very small amounts of dye to achieve bright translucent colored castings. If you are looking to use a dye, pigment, or filler that you have not used before, we highly recommend making a small test sample to ensure compatibility before using in resin.

Color Stability - Yellowing

As with all epoxy chemistry, Amazing Clear Cast Plus will develop a yellow hue over time. While there are enhanced UV inhibitors in this system that help it resist longer than any other competitive products we've tested, a yellow hue may develop. This hue may develop in months in direct UV exposure environments to years indoors. Many times this is not ever noticed based on the underlying surface color and the relative thin layer. Applications where ACC+ is applied over bright white surfaces or when pouring thicker layers, yellowing may be more evident. ACC+ is not recommended for outdoor applications.

Shelf Life

The shelf life of Amazing Clear Cast Plus is 12 months in an unopened.

Curing

When being applied and cured between 75-80°F, surface in most instances will be tack-free in 12-24 hours. Lower temperatures will slow cure, while warmer temperatures will accelerate cure. Material and environmental temperatures above 80°F may cause resin to cure too quickly causing air bubbles to be trapped and can also cause excess shrinkage.

Work Area & Clean Up

Mixed Alumilite resins will absorb into porous materials and will stain! Avoid clothing, carpet, upholstery, and any other porous materials which will stain and will not come out. Resin casting is best done in a designated work area such as a basement, garage, or hobby room with adequate air movement or ventilation. Cover any surfaces including floors with plastic sheeting, cardboard, or plywood to prevent damage from spilled resin. To clean up unmixed or still liquid material, use rubbing alcohol on a rag or paper towel to quickly clean and remove. Once cured, the resin is extremely durable and chemical resistant and nearly impossible to remove. There are a couple solutions out in the market that claim to dissolve cured urethanes. If you are in need of such a material, please call us and we can refer you to some possible solutions.