



UV CURE CLEAR RESIN

- Cures in minutes by sunlight or UV lamp
- Clear resin resists scratches & yellowing
- Non-toxic, BPA & VOC-free formula
- Ideal for resin casting & crafting

PRIMARY APPLICATIONS: Castings and coatings

THINNING: Do not thin or add any solvents to TotalBoat UV Cure Clear Resin.

CLEANUP: Use denatured alcohol or isopropyl alcohol before the resin has cured. Once cured, it must be mechanically removed.

MOLD RELEASE AGENTS: Use an appropriate aerosol mold release agent such as Smooth-On Ease Release 200 or Universal Release Agent, or a mold release wax such as Collinite Mold Release Paste Wax. For best results, when applying a paste-type mold release wax, apply and polish out 4-5 coats of wax prior to using UV Cure Clear Resin.

COLORANTS/TINTS: Mica Powders, alcohol tints, pigment dispersions, universal pigments.
*Do not use water-based tints.

SURFACE PREPARATION:

Molds, Mold Release Agents, Substrates: An appropriate mold release agent is recommended for casting applications, though it is not required. A mold release agent will help the cured casting release from the mold easily, while preserving the surface of the mold, extending the useful life of the mold. The casting will take on the exact impression and texture of the mold. For a high-gloss finish, a mold release wax can be applied and buffed out to get the smoothest surface. 4-5 coats of mold release wax will ensure the easiest demolding process and consistent finish. Aerosol mold release agents are also available. Use Smooth-On Ease Release 200 for a matte finish, or Smooth-On Universal mold release spray for a high-gloss finish.

When casting UV Cure Clear Resin with a porous material such as wood, it is imperative to seal or stabilize the porous material to prevent bubbles

from coming out of the porous material. Ensure that the wood's moisture content is less than 12% and seal the surface with a seal coat of UV Cure Clear Resin or a clear epoxy material prior to using it for any castings.

APPLICATION

Exothermic Reaction: The cure of TotalBoat UV Cure Clear Resin is an exothermic reaction and will generate heat when the specified bandwidth of light comes in contact with the resin. The amount of heat generated is proportional to the mass of UV Cure Clear Resin that is being cured, as well as the intensity of light.

Adding Tints, Pigments, Colorants: Tints and colorants can be added to UV Cure Clear Resin to create beautiful, bright, and bold colors, as well as special effects. Alcohol ink pigments, mica powders, pigment dispersions and other non-water-based tints can be used. It is imperative to mix in the tints in a mixing cup very quickly and pour into the desired mold before the resin starts to set up, taking extra care to stay out of sunlight. Always perform a test sample casting with any colorants before attempting to use them in the final project, to ensure that it achieves the desired results.

Dispensing: Only dispense the amount of UV Cure Clear Resin being used. Pour slowly and as close to the desired location to avoid cascading, which may induce air bubbles. A heat gun can be used to remove any bubbles before introducing UV light to the resin for curing. Wave the heat gun a few inches away for a few seconds - the bubbles should rise to the surface. Do not overheat the material, as it can permanently burn or distort the surface of the resin.

Curing: TotalBoat UV Cure Clear Resin does not require the addition of any other materials to cure. When UV Cure Clear Resin is exposed to UV light (365-395nm) the resin will react and start to cure. Some light sources in this bandwidth include black lights and sunlight. Avoid any unnecessary light exposure, if possible, to prevent premature curing or shortened working time. The cure time of UV



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Cure Clear Resin is dependent on the intensity of UV light and the mass of the material. The light source may need to be moved around a mold or from different angles to ensure a complete cure. The resin will heat up as it is reacting with light, and will cool if the light source has been removed, or when it has completely cured. If the material still feels soft or flexible once demolded, it is not fully cured. Continue exposing the material to UV light until it has become very firm and hard.

Demolding: The demold time of UV Cure Clear Resin is dependent on the amount of UV exposure, the

mass of the casting, and the thickness of the casting. This is usually between 3 and 20 minutes. If a casting comes out of the mold and feels soft on the side that was in contact with the mold, expose that surface to light for 1-2 minutes until it is fully cured.

Product Storage Conditions: Store UV Cure Clear Resin in a cool, dark, dry place, below 65°F. Always replace the cap immediately after dispensing, and close the cap tightly. Always store UV Cure Clear Resin in the black bottle it comes in.

APPLICATION DATA:	
Application Method:	Casting, coating
Cure Method:	UV Light
Light Bandwidth for Cure:	365-395nm ultraviolet (black light)
Minimum Light Intensity to Cure:	70mW/cm ²
Viscosity:	1000cP (+/- 200)
Working Time:	There is no defined working time, but it is recommended to work quickly as soon as the material is dispensed. Any ambient light between 365-395nm will force the resin to cure very quickly.
Cure Time:	2-10 minutes (depending on UV intensity and thickness of material). Heavily tinted resin may take longer to cure due to the opacity.
Demold Time:	3-20 minutes
Application Conditions:	60-95°F
Colorants/Tints/Dyes:	Yes - do not use any water-based tints or colorants.

PHYSICAL DATA:	
Color:	Clear
Components:	1
VOC (g/L):	<15
Odor:	Low, slight smell during cure
Cured Hardness (Shore D):	85
Shelf Life:	Dependent on storage conditions and the exposure to UV light, up to 6 months.
Food Safe Once Cured:	No
Units of Measure:	3.5 oz. (100g), 7 oz. (200g)