

Diamond Clear Epoxy Casting – Deep Pour & River Table Resin (A-112/B-442)

Description:

Diamond Clear Epoxy Casting - Deep Pour & River Table Resin is a 100% solids, DOT Non-Regulated, self-leveling, primerless, odorless, water clear coating often used for river tables and other large castings. Diamond Clear Epoxy Casting - Deep Pour & River Table Resin can be used anywhere a hard, durable, crystal clear surface is required. Diamond Clear Epoxy Casting - Deep Pour & River Table Resin has been enhanced with both a UV absorber and a HALS (hindered amine light stabilizer) to help lessen the effects of UV light to protect against loss of gloss, cracking, chalking and to reduce yellowing.

Product Advantages:

- IDEAL 2:1 MIX RATIO
- EXTREMELY TOUGH SURFACE
- HIGH GLOSS
- BLUSH RESISTANT
- EXCELLENT ADHESION TO WOOD

Application Guidelines:

For very large castings the thickness should be limited to 2 inches for a single pour (minimum pour depth is 1/2"). For larger pours it is recommended that some form of cooling is utilized. Do not vary or deviate from mix ratios, failure to do so can result in soft spots or partial curing. For best results the material should be used at temperatures from 70°-80°F. Work areas should be clean and dust/insect free.

Handling/Physical Properties:

RESIN VISCOSITY, cP or mPa.s	600-800	ASTM 2196
RESIN DENSITY	9.22	ASTM D 792
HARDENER VISCOSITY, cP or mPa.s	120	ASTM 2196
HARDENER DENSITY	8.2	ASTM D 792
MIX RATIO (A/B), pbv (pbw)	2/1 (2.27/1)	
COLOR	Clear	
MIXED VISCOSITY, cP or mPa.s	450	ASTM D 2196
WORKING TIME, h	4-6	
GEL TIME, h (100 grams)	24	ASTM D 2471
<u>CURING TIME (@1", 75°F):</u>		
SURFACE TACK-FREE, h	24-48	
THRU CURED, h	72	
HARDNESS, Shore D	82	ASTM D 2240

Surface Preparation:

To achieve excellent adhesion, the substrate must be free of all loose and foreign material and should be clean. Oils, grease, waxes or other contaminants must be removed prior to coating.

Mixing:

The storage temperature of Diamond Clear Epoxy Casting - Deep Pour & River Table Resin will greatly affect the ease of mixing, application and curing time. For best results, Diamond Clear Epoxy Casting – Deep Pour & River Table Resin should be stored at **70-80 °F** for at least 24 hours before use. Mix 2 parts A (resin) to 1 part B (hardener) using a spatula or stir stick until uniform. Be sure to scrape sides of mixing container while mixing (any unmixed or partially mixed material will cause wet spots on finished surface). DO NOT mix more material than can be used within the stated working time. REMEMBER - you will have less working time at higher temperatures.

Application:

Diamond Clear Epoxy Casting – Deep Pour & River Table Resin (if using as a seal coat) can be applied with a foam brush/roller or squeegee. Usually material is applied in stages with no pour thicker than 2 inches (unless casting can be cooled). Minimum pour depth is ½". Recoats can be applied as soon as current layer has “tacked up”. If your previous layer has fully cured then very light sanding with a fine grit (220) sandpaper followed by a solvent wipe (isopropyl alcohol or acetone) is necessary before application of subsequent layer. A heat gun or torch may be used after the pour is completed and the material is still liquid to burst/pop any remaining air bubbles. If a torch is used the flame should never come in direct contact with the epoxy, smooth strokes 6-12 inches above the material is all that is required.

If at any point the resin (part A) appears foggy or milky, or you can see little white granules or even complete solidification (or anything in between – think wallpaper paste consistency), this is a natural occurrence called crystallization. Do not be alarmed, the material has not gone “bad” and can be returned to its normal state. Crystallization is an issue that can be easily resolved with proper heat. Increase the temperature of the resin to be between 50°C (122°F) and 60°C (140°F) using a hot water bath. Check epoxy every 10 minutes and keep warm until there is no evidence of crystals and the resin is completely clear (depending on the size of the container this could take several hours). After the above heat treatment is performed the material will have all original performance properties and you can proceed to use as normal. Be sure to allow resin to cool back to room temperature before mixing.

SAFETY PRECAUTIONS

Mix and pour in a well-ventilated area. Avoid contact with skin and eyes. If contact does occur, wash skin with soap and water and seek medical help. Read and understand all CAUTIONS on container labels and safety data sheets before using this material.

Avoid breathing of vapors. Forced local exhaust is recommended to effectively minimize exposure. NIOSH approved, organic vapor respirators and forced exhaust are recommended in confined areas, or when conditions (such as heated polymers, sanding) may cause high vapor concentrations. **DO NOT WELD ON, BURN OR TORCH ON OR NEAR, ANY EPOXY MATERIAL. HAZARDOUS VAPOR IS RELEASED WHEN AN EPOXY IS BURNED.**

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