



VARATHANE® DEEP POUR CASTING EPOXY

DESCRIPTION AND USES

Varathane® Deep Pour Casting Epoxy is a crystal-clear casting resin developed to offer unrivalled clarity, bubble release and UV Resistance. Product is formulated for maximum compatibility with a wide range of substrates and mold materials and is particularly suited for casting into wood where it can be used to create stunning thick, clear or pigmented resin infills in furniture up to 2" thick in a single pour.

Varathane Deep Pour Casting Epoxy can be used for just about any application that requires a crystal clear bubble-free and tough resin casting. Product is easy to use, low odour, self-degassing and does not require any specialty equipment. This Casting Epoxy can poured as a thick coating over existing surfaces or into molds made from silicone rubber. It can also be poured into knot-holes, cavities and gaps between wood for furniture pieces such as Epoxy River Tables.

PRODUCT FEATURES

- Crystal clear
- UV & yellow resistant
- Excellent bubble release
- Pour up to 2" thick
- Excellent hardness
- Low exotherm (heat build up)

RECOMMENDED USES

- **Furniture:** River Tables, Crack Filling, Knot Holes
- **Clear Castings:** Sculptures, Figurines, Coasters
- **Encapsulations:** Coins, Dry Flowers, Stones, Insects
- **Wood Crafts:** Bowls, Cutting Boards, Vases, Spheres

Note: Varathane Deep Pour Casting Epoxy is recommended for pouring films that are between 1/4" – 2" thick per layer. For films less than 1/4" thick, we recommend using our Varathane Bar & Table product.

PRODUCTS

DESCRIPTION (KIT)	SKU
1.42L	383904
2.84L	383905

REQUIRED SUPPLIES (not included)

- Two measuring cups
- Two clean mixing cups
- Two clean mixing sticks
- Nitrile gloves/safety glasses
- Release Tape to create barrier
- Silicone, Polypropylene or MDF Mold (if Casting into a Mold)
- Optional: Heat gun or hair drier

PRODUCT APPLICATION

READ INSTRUCTIONS CAREFULLY BEFORE STARTING PROJECT

It is important for users to familiarize themselves with the following information and ensure that instructions are followed correctly, particularly those points relating to working temperatures, humidity, measuring and mixing. Unsatisfactory results are typically caused by unsuitable ambient temperatures, improper measuring or mixing.

Product was designed to work best at temperatures between 21°C and 27°C. Product can absorb moisture from the air while curing that can affect surface finish. As such, product should not be applied in high humidity conditions (70% and above).

SURFACE PREPARATION

Just as the Deep Pour Casting Epoxy can be affected by moisture in the air, it can also be affected by any moisture present in surface it is poured onto. It is therefore very important to ensure surface is dry and stable as possible. This is particularly relevant when working with natural materials like wood, cork or concrete where moisture levels within substrate can be high. When working with wood that is either freshly sawn or reclaimed/salvaged from a damp environment it will be necessary to dry the wood thoroughly — which could take days or weeks indoors — before use.

Failure to ensure that wood is properly dried and stabilized can result in a surface reaction with the resin as well as "bowing" if the wood starts to dry after the resin layer has been cast.

SEAL COAT

Porous substrates such as wood, chipboard, concrete, ceramics etc. should be first sealed with a thin coat of Varathane Bar & Table. Doing so will seal and stabilize the surface, greatly improving the flatness of the final pour and also reduces the potential of air entrapment. The seal coat can be applied using a foam brush.

SAFETY PRECAUTIONS

Work in a well ventilated area. Whenever weighing, mixing, pouring or checking the state of the cure of the resin, you should be wearing suitable protective gloves and eye protection as a minimum precaution. Always wear gloves when you are 'testing' to see if the surface has cured. Do not touch or handle the surface without gloves until you are sure it is fully cured.



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PRODUCT APPLICATION (cont.)

APPLICATION

FOLLOW MIXING DIRECTIONS CAREFULLY: Improper mixing is the most common reason for poor results and sticky spots.

STEP 1 (Prep)

Seal Coating (Porous Objects): We recommend using our Varathane Bar & Table Top Epoxy as a seal coat for porous substrates (wood, chipboard, concrete etc.). Using a foam brush, apply a thin layer of Varathane Bar and Table Top Epoxy to any porous object or surface to be encapsulated. This thin layer will seal pores in the object, preventing bubbles from forming during step 2. Allow 4 - 8 hours between seal coat and pour.

STEP 2 (Molds)

A proper mold is required in order to contain the product and prevent sticking of cured epoxy to mold. It is very important that your mold is totally sealed, otherwise the resin could leak out and spoil the project. We strongly recommend choosing a barrier material that epoxy will not stick to such as MDF, Polypropylene Sheets or Silicone Molds. Weights or clamps should be used to secure material in mold to prevent floating once epoxy is poured.

STEP 3 (Mixing Instructions)

In a clean, dry measuring container add (by volume) 2 parts Resin (Part A). In another container measure out 1 part (by volume) Activator (Part B). Combine Part A and B in a third container and mix thoroughly for 5 minutes ensuring the sides and bottom of container are mixed well. Add Mica coloured pigments as desired and mix until evenly dispersed.

STEP 4 (The Pour)

Working area should be clean, dry and free of dust and insects. Settling dust can cause blemishes on the glossy surface. Varathane Deep Pour Casting Epoxy can be poured 1/4" - 2" (0.6cm-5cm) per layer. After 20-30 minutes, take a careful look over your resin pour. If any trapped air bubbles still persists, you can exhale, use a heat-gun or blow drier over the surface to lift any remaining air bubbles from Epoxy.

Even though Varathane Deep Pour Casting Epoxy is formulated to be low exotherm, the chemical reaction of the curing process does release heat. Therefore for pours of 12L volume or more, multiple thinner layers (maximum 1" thick) may be necessary to prevent overheating.

PRODUCT APPLICATION (cont.)

STEP 4 cont. (The Pour)

For best adhesion between layers, wait 48 hours between pours (until the previous layer has set but is still tacky). If the previous layer is no longer tacky, sand with Gator 120 or 150 grit Sandpaper and wipe down before pouring another layer.

STEP 5 (De-Molding & Polishing)

Cover surface (if possible) to prevent dust and debris from falling on surface. Allow to cure for 72hrs before removing from Mold. Please note that Epoxy will continue to harden to full strength over a period of 7 days. Once removed from mold, Epoxy can be shaped, flattened and polished as desired.

PIGMENTS AND TINTS

To achieve a range of creative effects, Varathane Deep Pour Casting Epoxy can be tinted using our Varathane Mica Pearlescent Pigments (available in 7 colours) including the primary colours Red, Blue and Yellow: that can be blended to create various hues of green, purple and orange. To achieve a subtle 'tint' remember that you will need proportionally more tinting pigment for thin sections than you will for thicker areas. We recommend a starting level of 5g of pigment for every L of Epoxy (or 0.5% pigment by weight of Epoxy). A transition from one colour to another can be achieved using two pours of differently tinted Epoxy, sloping the surface slightly for the first pour to create a thickness gradient for each pour. Always conduct a small test first to ensure you are happy with the hue and hiding of your pigment mix.

CLEAN-UP SOLUTION

Isopropyl or Denatured Alcohol

	TECHNICAL DATA	VAR-139
	VARATHANE® DEEP POUR CASTING EPOXY	

PHYSICAL PROPERTIES

		DEEP POUR CASTING EPOXY
Resin Type		Epoxy
Pigment Type		NA
Solvents		NA
Weight	Per Gallon	8.54 lbs.
	Per Liter	1.0 kg
Solids	By Weight	100%
	By Volume	100%
Volatile Organic Compounds		0 g/l
Mixing Ratio		2:1 (Base to Activator) by volume
Recommended Dry Film Thickness (DFT) Per Coat		250 mils (1/4")
Wet Film to Achieve DFT (unthinned material)		250 mils (1/4")
Practical Coverage at Recommended DFT (assumes 15% material loss)		2.04 sq. ft./1.42L
Pot Life @ 21°C and 50% Relative Humidity		Up to 8 hours
Dry Times at 25°C and 50% Relative Humidity	Touch	36 hours
	Recoat	24-48 hours or after 72 hours
	De-Molding	72 hours
	Full Cure	7-10 days
Shelf Life		3 years
Flash Point		Part A 124°C, Part B 209°C
Safety Information		For additional information, see SDS

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