



R-CAST2.0 UV

Technical Data sheet

Description

R-CAST2.0 is a 2-component epoxy casting system. It is used for mass castings with a thickness greater than 1/2" (1.3cm) and less than 2.5" (5 cm) **depending on the volume**. Without VOC, R-CAST2.0 is made from highest quality primary ingredients. R-CAST2.0 is suitable for project that require a very high resistance to UV (anti-yellowing properties). Without color, it is very easy to create crystal clear projects without bubbles. When catalyzed, R-CAST2.0 meets FDA (food contact) requirements.

Primary applications

- River tables
- Charcuterie boards
- Embedding and encapsulation

How to calculate the desired amount of epoxy

The easiest way to calculate the epoxy required for your project is to measure the volume in cubic inches and convert to liters by dividing the result by 61 (in³ divided by 61 = liters).

EX: 10" wide X 72" long X 2" thick = 1440 in³ 1440 divided by 61 (conversion factor) = 23.6 liters

Restrictions

- **In case of freezing:** The molecules of part A tend to agglomerate in cold weather, which has the effect of creating the formation of crystals/sediment in the bottom of the container (the epoxy has a blurred appearance). It is essential to heat the containers in a water bath until the temperature of the product reaches 55°C (130F). Following this procedure, the product will become completely liquid. **Please note that no replacement or compensation will be granted. It is the responsibility of the user to check the condition of the product before each use. See crystallization document**
- R-CAST2.0 should be kept in a dry place between 15°C and 25°C (59F/ 77F), away from the sun and out of reach of children.
- Resin and hardener should not be left in an open container.
- It should not be used when humidity is above 60% and when the temperature exceeds 25°C.
- R-CAST2.0 should be used within one year of purchase.
- **Use a fan during high-mass castings to avoid any risk of exothermic reaction.**

Technical specifications and mechanical data

<u>Colour</u>	<u>Clear</u>
<u>Mixing ratio by volume</u>	<u>2A : 1B</u>
<u>Mixing ratio by weight</u>	<u>100 (A) : 44 (B)</u> (1 Gallon A = 4.24kg) (1 Gallon B = 3.72kg)
<u>Viscosity</u>	<u>510cps</u>
<u>Pot life when mixed (21°)</u>	<u>1.5 hours</u>
<u>Gel time (swirls)</u>	<u>Between 8 to 12 hours</u>
<u>Recommended full cure</u>	<u>5 days</u>
<u>Ideal working temperature</u>	<u>18–21°C (65–70F)</u>
<u>TG Utime (glass transition)</u>	<u>75°C (167F)</u>
<u>*Recommended thickness</u>	<u>Min 1/2'' – Max 2.5''*</u>
<u>Peak exotherm temperature</u>	<u>39°C (102F)</u>
<u>Hardness (shore D)</u>	<u>85</u>
<u>Cleaning</u>	<u>Xylene / Acetone</u>

***Based on a temperature of 18°C taking into account the volume (mass effect)**

Health and safety

In case of skin contact, wash with soap and water for 5 minutes. In case of contact with eyes, rinse immediately for about 15 minutes. In case of respiratory problems, transport the victim to fresh air. Components A and B contain toxic ingredients that can cause strong allergic reactions. If in doubt, consult a doctor immediately. Prolonged contact can cause skin irritation. Wear gloves and safety glasses at all times. When sanding, use a dust collector and a NIOSH/MSHA approved respirator. See the safety data sheet for more details.

Important notice

The information and recommendations contained in this document are based on reliable results and tests according to Ryver epoxy. If used in combination with other materials, the results may vary. It is the user's responsibility to test the product before using it on a large scale.

Ryver epoxy assumes no legal liability for direct, indirect, consequential economic or other damages. Unless otherwise agreed, Ryver epoxy will not assume any product replacement in the event of misuse or lack of knowledge. It is the responsibility of the user to read this technical data sheet in order to fully understand the constraints related to the use of the product.

Preparation

Mold

- 1- Use a plywood or melamine sheet and cover it with red or blue Tuck tape.
- 2- Assemble side and seal corners with silicone to make it 100% leakproof. Clean the excess and let it dry before pouring.

Wood preparation

- 3- Remove bark and clean any residues to ensure a perfect bond between wood and epoxy. Wood moisture MUST BE under 12% (Kiln dry).
- 4- For clear pours, we recommend to seal the edges with a thin coat of R-Epoxy (let it dry 24hrs and lightly sand for a perfect bond).
- 5- Assemble wood pieces as desired in prepared mold. Use clamps to hold the pieces in the bottom of the mold. Keep in mind that wood floats!

Epoxy preparation

- 6- Mix the required amount of epoxy for at least 5 minutes. Mix counter clockwise to minimize bubbles.
- 7- If necessary, add pigment and mix for another 3 minutes.
- 8- Pour your mix in your mold.
- 9- Room temperature must be 21°C (70 F). **To avoid exothermic reaction, use cooling fan for the first 24h.**
- 10- Unmold project when the epoxy is hard to touch (approximately 4 to 5 days).
- 11- Flatten the surface with router or CNC.

*For finishing process technique, please refer to your nearest distributor.

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