

EPOXY CASTING RESIN

TECHNICAL DATA SHEET

PLEASE NOTE

Thoroughly read Safety Data Sheets, product labels and the **SAFETY** section in this Technical Data Sheet. It's always best practice to test your color technique/application on a sample piece similar to your substrate, prior to starting your project.

DESCRIPTION

Stone Coat Epoxy Casting Resin is a remarkable two-part epoxy with a 2:1 ratio. It's perfect for applications that require thicker pours, allowing up to 25mm per pour depending on the volume. The end result is a stunning glass-like finish. This exceptional material is specifically designed to fill medium to large voids ideal for live edge river tables, coffee tables and moulding, encapsulating and more.

Unlike our regular Stone Coat Countertop Epoxy, which can only be poured in 3mm thickness per coat, Epoxy Casting Resin offers the flexibility to pour up to 25mm thick, depending on the size and mass of your project. Moreover, its slow-curing nature prevents overheating during the curing process, ensuring optimal results. For maximum durability, we recommend using a normal Stone Coat Countertop or Art Coat Epoxy as a flood coat over Epoxy Castin Resin. It's important to note that Epoxy Casting Resin is not intended as the final coat.

Avoid using it as a 3mm surface coating or for filling small cracks, knots, and voids under 6mm thick. Epoxy Casting Resin requires volume to cure properly. Rest assured, it is fully compatible with our 3D metallic mica powders, liquid epoxy dyes, epoxy pastes, and glitters. Epoxy Casting Resin is also compatible with our Ultimate Top Coat once cured.

Complies with FDA 21 CFR 175.300

PRODUCT FEATURES

- Long Working Time
- Scratch-Resistant
- Compatible with all epoxy colorants
- Zero VOC- 100% Solids
- DIY friendly
- Excellent Air Release

SIZES AVAILABLE

- 1.5 Gallon (6.83KG)

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PHYSICAL PROPERTIES

Mix Ratio by Weight	100 Resin : 44 Hardener
Mix Ratio by Volume	2 Resin : 1 Hardener
Mixed Viscosity (cps)	1,000
Work Time (minutes)	90-120
Total Cure Time (days)	7
Durometer Hardness (Shore)	D70
Maximum Casting Thickness (inches)	0,5-1 (Volume/Temp. Dependent)
Heat Deflection Temperature (°C)	54
Tensile Strength (psi)	N/A
Elongation (%)	N/A
Elastic Modulus (psi)	N/A
Flexural Strength, 5% Strain (psi)	N/A
VOC (g/l)	0
Resin Colour & Clarity	Clear/Slight Violet

BEFORE YOU BEGIN

Work Environment

The ideal working temperature is around 15-24°C in a clean, dry, dust-free environment. Working in high humidity will shorten the working time slightly. Keep the temperature above 15 degrees for the first 48 hours of curing. When pouring a large volume of Epoxy Casting Resin, turn on a fan blowing across the epoxy area to help dissipate heat to reduce the risk of epoxy overheating.

Coverage

Before starting your project, utilize the coverage calculator on our website to accurately determine the volume of mixed resin required. As the product fills the nooks and crannies of your mold, the level may decrease. Be ready to add additional epoxy as necessary. Please note that the calculator does not consider embedded objects. It is advisable to have surplus material on hand to guarantee the successful completion of your project.

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BEFORE YOU BEGIN (continued)

Seal Coat

When working with porous surfaces like live edge wood slabs, hardwood, and driftwood, it's crucial to apply a thin seal coat. This prevents the finish from being contaminated by micro bubbles that may arise from the presence of air and moisture in the substrate. We recommend using either Stone Coat Countertop or Art Coat Epoxy as a seal coat, using approximately 1 ounce of mixed epoxy per square foot (320ml of mixed epoxy per square meter). Before applying a second seal coat, ensure to lightly sand and address any bubbles. Typically, 2-3 seal coats suffice to achieve the desired outcome.

Materials

Be prepared with all necessary materials and tools before beginning your project. These items might include (but are not limited to) two-part Epoxy Casting Resin kit (Parts A and B), mixing containers, clean stir sticks, power mixer, gloves, torch or heat gun, drop cloth and Isopropyl alcohol.

MIXING & POURING

Step 1

Prepare 2 parts Resin (Part A) and 1 part Hardener (Part B) by liquid volume. Pour in both part A and B into a clean, smooth-sided container large enough to hold all the liquid, allowing room for mixing without spillage. Use graduated mixing containers help to ensure properly measured amounts of Part A and B. Any variance in this mix ratio may result in curing issues.

Step 2

For optimal results, thoroughly mix parts A and B in a container for 5 minutes. Stir slowly until no swirls remain, around 3-4 minutes. Scrape sides and bottom of the container halfway through. Use a paddle mixer or paint stick attached to a drill at slow speed. Continue mixing for 2-3 minutes after swirls vanish. For volumes larger than 1 gallon (3.79 L), use a low-speed drill mixer. Pause and scrape periodically. Enhance Epoxy Casting Resin with metallic mica powders, dyes, glitters, etc.

Step 3

Once thoroughly mixed, slowly pour the resin from a low height to avoid cavitation and creation of air bubbles when pouring. Note: Don't leave resin in the container for more than 30 minutes without pouring as the large mass can generate heat and start the curing process. When pouring depths up to 25mm, pour layers of 6mm to 12mm and use a propane torch or heat gun to release air created when pouring.

Gently sweep a propane torch or heat gun approximately 50mm to 100mm above the surface to pop any bubbles. Make sure to repeat this process every 6mm to 12mm of depth poured, creating shorter distances for air bubbles to escape. Once the air bubbles have been removed, repeat the process for each subsequent layer until you achieve the desired depth. This process will only take a minute or two per layer before continuing to pour the remaining material in your mix bucket.

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MIXING & POURING (continued)

Step 4

The curing times for each project can vary considerably, depending on factors like mass and temperature of your working environment. Typically, the open time spans between 80 and 120 minutes. After pouring the epoxy, the project is left in the mold for a duration of 3 to 7 days, depending on the volume.

Step 5 (optional)

For optimal results when making a second pour, it is recommended that the first pour has a firm yet tacky texture, which typically occurs within 24 to 72 hours. If you wait until the surface is fully cured, a light sanding prior to the recoat is required to ensure proper adhesion. We suggest gently scuffing the surface with 220-320 grit sandpaper. Clean the surface using 91% (or higher) isopropyl alcohol to remove any dust or debris.

IMPORTANT : PLEASE NOTE

- **Pouring over bark is not recommended due to its tendency to retain excessive air and moisture.**
- **Epoxy Casting Resin is not intended for prolonged outdoor use or direct exposure to UV rays. Although it does incorporate UV inhibitors to counteract yellowing, it is worth noting that all epoxy products will eventually yellow. This applies to both the base resin, the curing agent, and the final cured products. To disguise this yellowing, colorants are recommended.**
- **To embed paper decals, bottle caps, or other objects under a tabletop surface, you'll need to securely bond them using craft glue, super glue, hot glue, or a thin coat of countertop epoxy such as Stone Coat Countertop or Art Coat Epoxy. This ensures a durable and long-lasting attachment.**
- **Achieve your desired color by mixing this product with pigment powders and liquid dyes. However, it's essential to avoid mixing water-based products with the Epoxy Casting Resin. If unsure, it's recommended to test a sample batch to ensure a seamless color outcome without causing any complications with the curing of the material or the desired outcome.**
- **Proper storage of unused resin is crucial for maintaining its quality. Unopened resin and hardener have a lengthy shelf life of 12 months. It is recommended to store them in their original containers in a cool, dry place away from direct sunlight. While it is normal for the unused material to develop a yellow/amber tint over time, it can still be tinted with colorants, mixed, and applied as needed to achieve amazing results.**

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CLEAN UP & DISPOSAL

Tools can be cleaned with Isopropyl Alcohol or a residue-free cleaner. Do not use soap and water. Dispose of product and container according to Federal, State and local regulations. Store any remaining product in the original bottles, tightly sealed and locked up in a cool, dry environment.

SAFETY

Before use, thoroughly read Safety Data Sheets and product labels. Follow safety precautions, directions, and wear appropriate personal protective equipment for your use and application.

Mixed epoxy generates heat. The larger the mass, the more exotherm/heat will be created. Monitor heat of mixed material in bucket to avoid heat build and shortening of work time. Only mix what is needed for your project. Please see FAQs for more helpful information prior to beginning your project.

DISCLAIMER

The information contained herein is considered accurate; however, Stone Coat makes no warranty regarding its accuracy. The user must determine the suitability of the product for the intended use and accepts all risk and liability associated with that use.