# Instructions for ICE-THIN epoxy

## Important application facts to know before using ICE-THIN

**INADEQUATE MIXING IS THE MOST COMMON REASON FOR IMPERFECT RESULTS. PLEASE READ COMPLETE INSTRUCTIONS BEFORE BEGINNING PROJECT.**

- To achieve optimal outcomes, ensure that both the product and the room temperature are maintained at 59-70 °F or above. Cold temperatures, below 59 °F, can increase the likelihood of bubble formation and longer drying time.
- Please adhere to the measuring and mixing instructions diligently. Failure to do so may result in improper curing, leading to a soft or tacky finish. It's essential to follow the two-step mixing process.
- Ensure that your project remains free from dust for a minimum of twenty-four hours after applying the coating. Be prepared with a dust cover to shield your project, preventing any debris from contaminating the finish.
- NOT RECOMMENDED for projects that will be placed in direct sunlight for extended time periods.
- Ice Thin dries clear and is optimal when used between 0" to 1/2 inches thick
- Note: If the contents in either container appear thick or solid, place containers in hot tap water until contents return to a liquid state.
- DO NOT use on floors.

## Required Tools

- Three or more disposable buckets with clear volume markings, featuring smooth walls and a flat bottom.
- Straight-edged stirring sticks or paint paddles with a mixing drill
- A plastic spreader, squeegee, or notched trowel.
- Disposable foam or paint brushes for applying the coating to edges.
- A flat, clean dust cover.
- Waxed paper or a plastic drop cloth.
- Latex, vinyl, or chemical-resistant neoprene gloves.
- Optional protective clothing (for safeguarding against potential drips on clothing).
- Recommended eye protection.
- A heat gun, blow dryer, butane torch, or propane torch (useful for bubble elimination).

## Volume Coverage

This is how many gallons you need to cover 12" x 12" (1 sft) by the thickness you want:

- 1/4 inch thick by 1 sft = 0.15 gallons or 19.2 oz of liquid
- 1/2 inch thick by 1 sft = 0.31 gallons or 38.4 oz of liquid
- 3/4 inch thick by 1 sft = 0.46 gallons or 57.6 oz of liquid
- 1 inch thick by 1 sft = 0.60 gallons or 76.8 oz of liquid
  ** we recommend 2 pours if you need to build 1/2" thick or more. Make sure to scuff the surface before applying the second coat

## Surface Preparation / Building a Mold

Ensure that the surface or the mold is level, dry, and devoid of oil-based stains, dust, and wax. You can use a silicone mold or simply build one of your own. Prior to each coat or pour, clean the surface with acetone, avoiding the use of a tack cloth. If the surface has previously been treated with solvent-based liquids like varnish or stain, it's crucial to test a separate area to check compatibility with Ice-Thin. When applying Ice-Thin over polyurethane or acrylic finishes, lightly sand the surface and wipe it with acetone. To prevent drips, cover the surrounding area with waxed paper or a drop cloth, allowing any drips to naturally flow off the sides by elevating the area to be coated

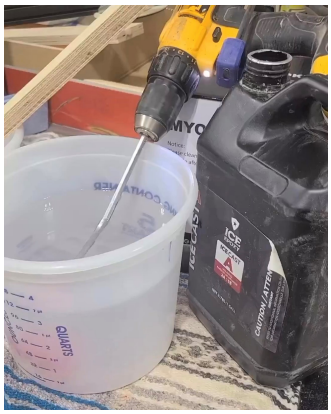
Building your mold:

- Choose the Mold Material: Select a mold material suitable for epoxy, such as silicone, polyurethane, HDPE plastic, melamine or MDF covered with Tuck Tape. Ensure it's flexible and can be easily released from the cured epoxy.
- Design the Mold: Plan the shape and size of your mold to match the desired epoxy casting. You can use existing objects or create a custom design.
- Build the Mold Box: Construct a containment structure around your model to contain the mold material.
- Seal the Model: Ensure the model is properly sealed within the mold box to prevent leakage. Use silicone to seal all the joints. Wait for the silicone to be fully dry before pouring the epoxy.
- Test the Mold: Before casting epoxy, conduct a test by pouring a small amount of epoxy into the mold to ensure it works as intended and releases the cast epoxy easily.

## Step 1: Measurement

In a dry, clean container mix 1 parts of resin (A) with 1 part of hardener (B). Ensure that the mixture maintains a precise one-to-one ratio, with the same volume of resin compared to the hardener.

## Step 2: Mix and Pour (Adding Color)



- Minimize air formation as much as possible by gently mixing for 2 to 3 minutes with a plastic helix mixer attach to a drill. Stir well along the inner wall of the container and then let it stand for 2 minutes.
- According to the operation time and dosage, adjust the amount to avoid waste. The jugs must be sealed after use to avoid product scrapping due to moisture absorption. It is important to note that the pot lifetime will be shortened in a warmer environment and lengthened in a cooler climate.
- If you're adding metallic pigment, you can decide the amount needed base on the opacity you need. The more you add the more opaque it will be. Don't add more than 2oz (25g) per 1 gallons of epoxy

It is EXTREMELY IMPORTANT and crucial to prevent the mixture from sitting, as this can lead it to solidify, overheat, and become noticeably hot to the touch.

## Step 3: Surface Bubbles

It's essential to eliminate surface bubbles while the epoxy is still wet, before it begins the curing process. Otherwise, these bubbles will transform into indentations. To remove the bubbles, use a heat gun, blow dryer, or a small handheld propane or butane torch. Keep the flame or heat source at a distance of 6 to 8 inches above the surface (8 to 10 inches for heat guns) and employ a slow, sweeping motion. Glide the heat source over the freshly poured Ice-Cast several times until the surface becomes free of bubbles. Use a gentle waving action to ensure that the surface is only mildly warmed, allowing any remaining air bubbles to vanish.

## Step 5: Curing

**NOTE: These curing times are to be used as guidelines only. Warmer temperatures will yield faster cure times. Recoat can be done within 20-24 hours if the surface is dry. Pass 24 hours you need to sand the surface and clean with acetone prior to recoat.**

- 1 inch or less at 70F will take less than 4-6 hours to gel
- 1 inch or less at 70F will take 20-24 hours to harden
- 1 inch or less at 70F will take 3-5 days to fully cure

## Step 6: Cleanup

- ICE-THIN should be stored in a dry place between 59 - 70°F (15 - 21°C), out of the sun and out of reach of children.
- Resin and hardener should not be left in an open container
- Application should be used where humidity is under 60% and temperature is between 59 - 70°F. Use a de-humidifier if needed.
- ICE-THIN should be used within one year of purchase.

## Technical Support

For technical support, contact our Technical Service Department by e-mail or visit iceepoxy.com. E-mail: salesiceepoxy.com

LIMITED WARRANTY: The manufacturer will not accept liability for more than product replacement.

Manufactured by/Ice Epoxy, 310 Legault, Blainville, Quebec, Canada, J7C3V8

## TECHNICAL SPECIFICATIONS AND MECHANICAL DATA

| | |
|---|---|
| **COLOR** | **Clear** |
| **MIX RATIO, BY VOLUME** | 1:1 (RESIN: HARDENER) |
| **MIX RATIO, BY WEIGHT** | 1:1 (RESIN: HARDENER) |
| **MIXED VISCOSITY @ 73°F (23°C)** | 2500 CPS |
| **WORKING TIME @ 73°F (23°C)** | 1h |
| **GEL TIME @ 73°F (23°C)** | 4h |
| **DRY TOUCH** | 18-24 h relative to the mass |
| **IDEAL WORKING TEMPERATURE RANGE** | OPTIMAL 59 - 70°F |
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| **PEAK EXOTHERM** | 100°F |
| **RECOMMENDED FULL CURE** | 5 DAYS |
| **TENSILE STRENGTH** | 9500 PSI |
| **ELONGATION** | 6.7% |
| **FLEXURAL STRENGTH** | 15500 PSI |
| **COMPRESSION STRENGTH** | 8.4 kg/mm$^2$ |
| **TG ULTIMATE** | 203°F |
| **HARDNESS, SHORE D** | 82 |
| **VOC** | 0 g/L |

## Warning/Caution : United States

**Side A Resin:**

**WARNING:** MAY CAUSE EYE AND SKIN IRRITATION. MAY PRODUCE AN ALLERGIC SKIN REACTION. Contains bisphenol A/epichlorohydrin epoxy resin and o-cresyl glycidyl ether.

Keep out of reach of children. Avoid skin and eye contact. Wash hands immediately after use.

First Aid: If in eyes, rinse cautiously with plenty of water for 15 minutes. If on skin, wash with plenty of soap and water. If skin irritation or rash occurs, discontinue use. If symptoms persist, get medical attention. If swallowed, do not induce vomiting, get immediate medical attention.

For further health information, contact a poison control center.

Conforms to ASTM D-4236. VOC 7.7 g/L as Mixed.

**Side B Hardener:**

**WARNING:** CAUSES SEVERE SKIN IRRITATION AND EYE DAMAGE. MAY BE HARMFUL IF SWALLOWED. MAY PRODUCE AN ALLERGIC SKIN REACTION. SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD. Contains 1-nonene, amine curing agents, and phenols. Prolonged exposure to vapor may cause nose and throat irritation.

Keep out of reach of children. Avoid inhalation. Use exhaust fan to remove vapors and ensure adequate cross ventilation. Do not eat, drink or smoke while using this product. Avoid skin and eye contact. Wash hands immediately after use.

First Aid: If symptoms occur, remove to fresh air. If in eyes, rinse cautiously with plenty of water for 15 minutes. If on skin, wash with plenty of soap and water. If skin irritation or rash occurs, discontinue use. If symptoms persist, get medical attention. If swallowed, do not induce vomiting, get immediate medical attention.

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