



THICKSET FATHOM DEEP POUR EPOXY

- Ultra-slow cure for maximum pour depth
- Pour single layers up to 3" deep
- Crystal clear, low VOC, low odor

TotalBoat ThickSet Fathom lets you pour deeper layers than ever before. Ultra-slow cure time and low exotherm allow you to pour single layers up to 3" deep. High-solids, low-VOC formula cures to a crystal-clear finish that won't yellow. ThickSet Fathom is ideal for river tables, live edge tables, and large casting projects.

CLEANER/SURFACE PREPARATION: Denatured alcohol, acetone (depending on substrate compatibility)

CLEANUP: Scrape up and remove any uncured material, as needed. Denatured alcohol, lacquer thinner, or acetone may be used to clean up uncured epoxy. Cured epoxy must be removed mechanically.

THINNER/REDUCER: DO NOT thin TotalBoat ThickSet Fathom.

COLORANTS/TINTS: Epoxy dyes, colorants, or special effects additives can be added and mixed in. Only use products designed for use with epoxy. **IMPORTANT:** Always perform a small test with ThickSet Fathom and any colorants, dyes or other special effects to ensure that it achieves the desired results.

MOLD RELEASE AGENTS: Mold release paste wax, or an appropriate aerosol mold release agent

SURFACE PREPARATION:

- Clean any molds or dammed areas thoroughly to remove any dust, oil, tree sap, or other contaminants that can affect the final product.
- Clean the surface with a clean, lint-free cotton rag dampened with denatured alcohol.
- Thoroughly check dams or molds for possible leaks, and use silicone caulk in corners to prevent leakage, as TotalBoat ThickSet Fathom has a very low viscosity. Use sheathing tape, Tyvek® tape, or release agent on the

inside of the mold to prevent the epoxy from adhering to the dam/mold.

- Take extra care to seal any molds thoroughly to prevent leakage, as this product has a very low mixed viscosity, and a very slow cure.
- When making larger pours, ensure that the structure that the epoxy is poured into is well supported to prevent sagging from the weight of the epoxy, and ensure that the surface is level.
- When a rigid mold is being used, apply a release agent or mold release wax, as directed. When using a mold release wax, applying 4-5 coats, as directed, will ensure the best results when demolding.

IMPORTANT!

- When applying to wood or porous surfaces, always make sure to apply a very thin skim coat of epoxy to seal the surface, and allow it to cure before applying more epoxy.
- This skim coat will prevent air bubbles from coming out of the wood and getting suspended in the epoxy.

ENVIRONMENTAL CONDITIONS: Environmental conditions and temperature control are extremely important when pouring TotalBoat ThickSet Fathom. The product, substrate, and ambient air should all be between 60-80°F. For thicker pours (any smaller castings up to 3", or larger slab pours up to 2"), it is strongly recommended to maintain 75°F or lower. For thinner pours (smaller castings under 1-½" or slab pours under 1"), it is recommended to use the product between 70-80°F. The reaction between the resin and the hardener will create a delayed exothermic reaction, ranging between 6-24 hours after it has been mixed. The epoxy will increase in temperature as well as viscosity as the cure is occurring. The epoxy can shrink, crack, or yellow if it becomes too hot. If possible, the use of cooling tables under the mold, or cooling the ambient temperature of the space as the epoxy rises over 100°F will help slow the epoxy's temperature increase. Even and consistent temperature control will also promote the best surface finish of the epoxy. Take extra care not to blow dust or waves into the epoxy surface with fans or air conditioning. For best results, the epoxy should reach at least 90-120°F, but not exceed 180-200°F.

MIXING: For best results, the minimum pour volume should be ½-gallon of mixed epoxy. Mix 2 parts RESIN – PART A with 1 part HARDENER – PART B by volume (2A:1B) (or 100 parts RESIN – PART A to 43 parts HARDENER –



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PART B when measuring by weight). Do not adjust the mix ratios because doing so will negatively affect the cure and final results. A drill mixer may be used with this product to help mix larger volumes. Thoroughly mix both components in one mixing pail for 2-3 minutes, scraping the bottom and the sides thoroughly to ensure proper mixing, then pour into a second pail and mix for another 2-3 minutes to prevent swirls or resin- or hardener-rich areas of epoxy. Epoxy dyes, colorants, or special effects additives can be added and mixed in, as desired. Allow the mixed epoxy to sit in the mixing pail for 20-30 minutes prior pouring to allow any air bubbles to float to the surface.

APPLICATION:

Environmental conditions are extremely important to the quality of the cure and achieving the best clarity and surface finish.

RIVER TABLES and SLAB POURS: When pouring for larger projects, such as slabs or tables, do not exceed a pour depth of 2" to prevent yellowing, shrinkage, or cracking. Step pouring with multiple layers will achieve the best results when the desired thickness is greater than 2".

CASTING: When casting TotalBoat ThickSet Fathom in a smaller mold (up to 1 mixed gallon of ThickSet Fathom as an absolute maximum), the epoxy can be poured up to 3" deep. For best results, do not use ThickSet Fathom for pours less than 1" in depth as it will extend the required cure time.

BUBBLES:

- Slowly waving a heat gun a few inches over the surface of the recently poured ThickSet Fathom can help improve the consistency and smoothness of the surface, as well as help bubbles rise and pop.
- For thinner pours up to 1.5" thick, the ambient temperature can be increased to 90°F after 20 hours to help speed up the cure, allowing the epoxy to fully harden.

POURING ADDITIONAL LAYERS OF THICKSET FATHOM:

- When pouring multiple layers of ThickSet Fathom, it is very important to wait until the previous layer has cooled sufficiently, to prevent yellowing, surface distortion, or other negative consequences of excessive heat from the cure.
- Conservatively, the safest interval is to wait a minimum of 36 hours for ThickSet Fathom to cure prior to applying more, regardless of pour depth and ambient temperature.

- For applications when the shortest interval for multiple pours is important, wait at least 24 hours, and use an infrared thermometer to measure the temperature at the center of the epoxy mass, where the highest temperature will be recorded.
- Wait until the previous pour has dropped below 85°F, and the previous epoxy pour has firmed up enough that it will not distort when liquid epoxy is poured on it — it is likely that the previous layer will still be soft.
- Always follow the maximum pour depth based upon the volume of ThickSet Fathom.

DEMOLDING: The minimum demold time for deeper or larger pours is 48 hours, and 72 hours for smaller pours. If the epoxy feels soft or rubbery at all, it is extremely important not to demold yet.

SAFETY AND PERSONAL PROTECTIVE EQUIPMENT: Always use proper safety equipment, clothing, and PPE in accordance with the Safety Data Sheet. Only dispense or apply ThickSet Fathom with adequate ventilation.

EXOTHERMIC REACTION!

The cure of TotalBoat ThickSet Fathom is an exothermic reaction and will generate heat. It is not uncommon for a mass of ThickSet Fathom epoxy to reach 200-300°F or hotter if it is poured thicker than advised in these instructions.



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APPLICATION DATA:

Components:	Two - Resin and Hardener
Mix Ratio:	2:1 (Resin:Hardener) by Volume 100:43 (Resin:Hardener) by Weight
Application Conditions:	60-80°F (0-80% Relative Humidity)
Coverage:	231 cubic inches per gallon of mixed ThickSet Fathom
Resin Density:	9.3 @ 25°C
Hardener Density:	8.0 @ 25°C
Resin Viscosity:	600cP @ 25°C
Hardener Viscosity:	70cP @ 25°C
Initial Mixed Viscosity:	300cP @ 25°C
Working Time:	2-4 hours (depending on the mass of mixed epoxy)
Full Cure Time:	5-10 days (depending on the mass of mixed epoxy)
Resin Color:	Clear
Hardener Color:	Clear
Units:	1.5 Gallon Kit 3 Gallon Kit 6 Gallon Kit
Shelf Life:	At least 1 year after DOM, if stored properly

PHYSICAL DATA:

Cured Color:	Clear
Cured Density:	1.11 g/cm ³
Hardness:	83 Shore D
Volumetric Shrinkage:	4.7%
Volumetric Yield:	24.9in ³ per pound (.75 sq ft (at 3" thickness) per gallon of mixed product)
HDT:	115°F Room Temperature (121°F Post Cured)
Compressive Strength:	8300 psi
Izod Impact:	.80 ft-lb/in (notched)
Tensile Strength:	6800 psi
Tensile Elongation:	6.7%
Flexural Strength:	9600 psi
Flexural Modulus:	321,000 psi