- Durable coating for bars & table tops
- · Clear, high-gloss finish
- Easy-pour, self-leveling formula
- 100% waterproof, once cured

TotalBoat TableTop Epoxy is a pourable, self-leveling, crystal-clear, two-part resin system that protects and preserves table tops, bar tops, and counters. It cures to a clear, glassy, 100% waterproof finish with excellent scratch, stain, and yellowing resistance. BPA-free formula contains no VOCs.

# VERY IMPORTANT -TO ENSURE THE BEST RESULTS, PLEASE READ ALL DIRECTIONS BEFORE MIXING OR POURING!

**CLEANER/SURFACE PREPARATION:** Denatured alcohol, acetone (only for use on compatible substrates)

#### **CLEANUP:**

Part A – EPOXY RESIN: Denatured alcohol, acetone, vinegar.

Part B – HARDENER: Warm, fresh water and a mild soap, or denatured alcohol

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

THINNER/REDUCER: Do NOT thin this product.

**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 TableTop Epoxy 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 for epoxies.

**COVERAGE:** A 1-gallon kit of TableTop Epoxy will yield roughly 12 sq. ft. from a 1/8" pour depth (1 ounce of mixed epoxy covers roughly 13 sq. inches @ 1/8" thickness).

 Actual coverage is dependent on any number of factors including the surface area of the pour, the thickness of the pour, any epoxy that is absorbed by porous surfaces, and any wasted material.

# **SAFETY AND PERSONAL PROTECTIVE EQUIPMENT:**

Always use proper safety equipment, clothing, and PPE in accordance with the Safety Data Sheet for each product.

# **Exothermic Reaction!**

The cure of TotalBoat TableTop Epoxy is an exothermic reaction and will generate heat. It is not uncommon for a mass of mixed epoxy left in a mixing cup beyond the working time to reach 200-300°F during the cure cycle.

# SURFACE PREPARATION

All surfaces must be clean, dry, and free of contamination. Contaminants include, but are not limited to, dust, oil, moisture, lint, sap, and sanding debris. Do not use paper towels, dirty rags, contaminated sandpaper, or touch the surface with oily fingers. Sand, as needed, and remove all sanding residue. Wipe the surface down with a clean, dry cotton rag dampened with one of the approved surface preparation solvents. DO NOT use a tack cloth.

### WOOD AND OTHER POROUS SUBSTRATES:

ALWAYS apply a seal coat before flood coating. Start with a prepped surface, clean, dry, and free of contamination. Next, apply a thin coat of mixed epoxy. Knots or indentations may take more material to seal. Take care to cover and seal any voids or cracks. Allow the seal coat to cure to a rock-hard solid and sand with 80-120 grit sandpaper, paying careful attention to imperfections such as air bubbles. Finally, wipe clean with denatured alcohol and a clean cotton rag. The purpose of a seal coat is to minimize the effects of off-gassing by creating a thin, air-tight barrier between a porous wooden surface and the TotalBoat TableTop Epoxy flood coat, so air bubbles won't rise up through the curing epoxy to create unwanted cosmetic defects.

#### **APPLICATION CONDITIONS:**

All epoxy materials and the work space should be maintained at 70°F-80°F. Epoxy is a temperature-sensitive material. When cool, it's thicker, is harder to self-level, and cures slower. When warm, it is thinner, has better self-leveling, and sets faster. If the material or working conditions are below 70°F, TotalBoat TableTop Epoxy may become too viscous to properly release air bubbles. Working in conditions or with material above 80°F, TableTop Epoxy may set too quickly, which can generate excessive heat during the cure, leading to yellowing, distortion on the surface, or cracking.

# **MIXING**

The mix ratio for TotalBoat TableTop Epoxy is 1 part epoxy resin to 1 part hardener (1A:1B), by volume, or 100 parts resin to 83 parts hardener (100A:83B), by weight. Using the specified mix ratio is VERY important when working with epoxy. DO NOT deviate to speed up or slow down the gel time. An excess of resin or hardener will negatively affect the cure and could cause a wide range of short- and/or long-term problems with your epoxy coating.

## **MAXIMUM MIXING QUANTITY:**

Do not mix more than one gallon at a time. For larger projects, step-pour multiple pours. Mix ONLY what you intend to use immediately. Exceeding maximum mixing quantity could cause the epoxy to generate excess heat, shorten the working time, and prematurely begin to cure in the mixing cup.

### **ADDING TINTS AND COLORANTS:**

Do not add any tints or colorants until the resin and hardener have been mixed together completely. Tints and colorants can be added at any time during the 'working time' of the mixed epoxy. Only use compatible tints or colorants with TableTop Epoxy.

# **MIXING TECHNIQUE:**

The best practice is to combine the resin & hardener at the recommended mix ratio, mix for 3-5 minutes while scraping the

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sides and bottom of the container until there are no streaks or striations, transfer to a second container, and mix 2-3 minutes again, until fully blended. Take special care not to whip in excess air while mixing, and DO NOT use a drill mixer for mixing TableTop Epoxy. If any tints or colorants are desired, they can be added now. let sit for 1-2 minutes to allow air bubbles to start rising to the surface, then use immediately. The whole mixing process shouldn't take more than 8-10 minutes.

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# **APPLICATION**

### **MAXIMUM COATING THICKNESS:**

Do not apply TableTop Epoxy thicker than 1/8" - 1/4" per coat. For thicker coatings, step-pour multiple layers. Exceeding the maximum coating thickness may cause excessive heat from the cure reaction. Symptoms of excessive heat during the cure include a distorted or wavy surface, yellowing, and cracking.

#### **WORKING TIME:**

The working time of any epoxy is the time that it can be poured, worked, or applied after mixing. Epoxy is a mass- and temperature-sensitive material. The working time can vary drastically. Factors such as material temperature, ambient temperature, amount mixed, mixing time, and mixing speed can influence the working time. TableTop Epoxy has a 30-minute gel time at 77°F, for a 150 gram mass, but will set up much faster if warmer or left sitting for an extended period of time in a larger mass. The more you mix, and the warmer it is, the faster it will gel, or thicken. Knowing this, 10-15 minutes is an estimated average working time for most applications using TableTop Epoxy at room temperature. If the mixed epoxy starts to heat up in your mixing cup, apply it immediately.

### **POURING**

Pour the mixed TotalBoat TableTop Epoxy onto the surface in an S-shaped pattern. Using the plastic spreader or straight-edge tool, spread the epoxy evenly over the entire surface, pushing epoxy to the edges. Do not apply the epoxy thicker than 1/4" per coat.

# **REMOVING BUBBLES**

Let the epoxy sit for 10 minutes to allow air bubbles to rise to the surface. Using a heat gun or propane torch, apply heat 6-8 inches above the surface, moving constantly in a back and forth motion to remove air bubbles. Be careful not to overheat, scorch, or burn the epoxy, as this can cause permanent surface imperfections. Check periodically for additional bubbles, and remove as needed, but do not overwork isolated areas.

### STEP POURING AND OVERCOATING

The maximum coating thickness of TotalBoat TableTop Epoxy is 1/8" - 1/4" per pour, but deeper coatings can be achieved by steppouring multiple layers. Each layer MUST be allowed to cool to room temperature (70-80°F) before overcoating or adding additional layers. Once cooled, you can pour the next layer without additional surface prep all the way up until you can no longer indent a fingernail into the previous coat. No sanding is necessary. This should be around 2-4 hours after pouring, but warmer temperatures make it set faster, and cooler temperatures make it set slower. Large batches of mixed epoxy will also cure much more quickly than small batches. If allowed to cure past the point of

being able to indent a fingernail, you will want to scuff-sand lightly between coats to promote adhesion. In general, if you can sand, you should.

### **CURE AND FINISH:**

The relative cure times for TotalBoat TableTop Epoxy are as follows when applied at 1/8" thickness at 77°F: Tack free in 4 hours, sandable (if necessary) in 8 hours, ready for very light-duty use in 24-48 hours, and fully cured for full use in 5-7 days. Thinner coats or cooler conditions will require more time to cure, while thicker layers, or warmer conditions can shorten these cure times. TableTop Epoxy can also be wet sanded and buffed to a mirror finish, removing any surface blemishes or scratches that can occur from use. TableTop Epoxy is not UV stable. To help prevent the epoxy from yellowing over time, a clear urethane or varnish should be applied for any applications that will have direct UV exposure.

# **TROUBLESHOOTING**

Mistakes can happen, no matter what your skill level is with epoxy. Here are some of the most common problems, causes, and solutions for troubleshooting issues with TotalBoat TableTop Epoxy.

#### **BUBBLES:**

- 1. Temperature: If the environmental conditions or the epoxy being mixed are below 70°F, this can render the mixed epoxy too thick to release air bubbles and self-level properly.
- 2. Coating Thickness: Applying TableTop Epoxy thicker than the 1/4" maximum will make it more difficult to release air bubbles, even with a heat gun or torch.
- 3. Seal coat: ALWAYS apply a seal coat to wood or porous substrates before flood coating. Without a seal coat, air bubbles will constantly rise up from the grain and get trapped in the epoxy as it cures. Using a torch or heat gun will not remedy this, it will only become worse.
- 4. Mixing: Mixing too vigorously will whip excessive air bubbles into the blending resin and hardener. This can make the mixture look white, or have thousands of tiny bubbles. The smaller the bubbles, the harder it is for them to rise to the surface and pop naturally.

# **FISHEYES:**

Fisheyes are a surface defect caused by surface contamination. Oil, wax, dust, moisture, and sap are just a few contaminants. Even in small amounts, these can repel the epoxy, forming small, isolated areas without epoxy.

# SURFACE IMPERFECTIONS:

To fix imperfections, let the epoxy surface cure to the point it can be sanded (typically 8-12 hours). Lightly sand trouble spots with 120-220 grit sandpaper. Clean away sanding debris and wipe with a clean cotton rag soaked in denatured alcohol. Next, mix a small amount of TotalBoat TableTop Epoxy and fill in the freshly sanded trouble spots. This can also be done with clear super glue for a quicker fix on small imperfections such as fisheyes. Mixed TableTop Epoxy could also be diluted with roughly 2-5% denatured alcohol to help reduce mixed viscosity and improve self-leveling in the affected area — do not thin the epoxy more than 2-5%, as it can extend the cure time, reduce the cured finish gloss level, and compromise the fully cured physical properties. Fill the spot and let

# TOTAL BOAT TABLETOP EPOXY

it fully cure, then lightly sand the entire surface and apply another coat to level it out.

## **EPOXY DID NOT CURE PROPERLY:**

- 1. IMPROPER MIX RATIO: Verify that the proper mix ratio was used -1:1 (by volume), OR 100A:83B (by weight).
- 2. RESIN AND HARDENER: Make sure you used resin and hardener, not all resin or all hardener. They need to be mixed together, one does not get poured before the other, as stand-alone layers.
- 3. NOT MIXED THOROUGHLY (THE MOST COMMON ISSUE!): While mixing, be sure to scrape the sides and bottom of the mixing container to ensure all resin and hardener are fully blended. WE STRONGLY RECOMMEND THE 2-CUP MIXING METHOD as described in the MIXING section. Failing to mix this product thoroughly can and will result in soft spots in the coating, due to areas rich in resin or hardener.
- 4. POURING: NEVER scrape or brush the sides or bottom of the container you just mixed in to remove every last drop. No matter how thoroughly you may have mixed, there will always be an unmixed portion which can be dislodged and will leave a wet or sticky spot on your coating. The 2-cup mixing method (clarified in the MIXING section) will also help to prevent this issue.
- 5. TEMPERATURE: If the temperature is below 60°F while TotalBoat TableTop Epoxy is initially setting up, it can dramatically slow the chemical reaction needed for the development of the epoxy's final hardness. Increasing the ambient temperature to at least 80-90°F for 12-24 hours should help to revive the chemical reaction for hardness to develop.
- 6. INCOMPATIBLE TINTS, COLORANTS, ADDITIVES: Only use compatible tints, colorants, pigment, or special effects that are compatible with epoxy. ALWAYS perform a small test sample to ensure compatibility.

#### **CRYSTALLIZATION:**

Crystallization can make liquid epoxy resin appear cloudy, chunky, grainy, or even solid. Under most circumstances, this is due to improper storage conditions. Do not use crystallized epoxy. Crystallization is not permanent, however, and can be decrystallized and reconstituted to its original state for normal use. Heating the resin throughout the container to roughly 125-140°F will return the crystallized material to a clear liquid. The most common method of achieving this is placing the bottle of epoxy into a warm-water bath. Seal the bottle very thoroughly, or place it in a sealable bag, then place it in a tub or basin of warm water. Change out the water, as needed, to maintain the temperature at 125-140°F. Shake or stir the resin in the bottle, as needed, to help the process. A hot-water bath works well to heat the resin. Once the epoxy crystallization has been fully decrystallized, it is safe for use again, because it has been restored to its original working and physical properties.

# **PRODUCT STORAGE**

Store between 60-90°F, in a dry place, tightly sealed to prevent any moisture or contaminants from coming in contact with the liquid epoxy material. Ideally, it should be stored at a consistent temperature. Do not allow any TotalBoat TableTop Epoxy components to freeze during winter storage. After use, tightly reseal all containers. During cold weather, store products on a raised surface off the floor, and avoid storing near outside walls or doors.

#### SHELF LIFE:

The shelf life of TotalBoat TableTop Epoxy is a minimum of one year, under proper storage conditions. However, it is typically viable for a significantly greater amount of time.

### **APPLICATION DATA:**

Application / Epoxy Type: Coating

Application Film Thickness: 1/8"-1/4" per coat

> Coverage): 12.8 sq. ft. @ 1/8" per mixed

> > gallon of epoxy

Number of Coats: As many as desired

70-80°F, 0-85% Relative Humidity Application Temperature/RH: **Working Time** 20 minutes @ 77°F

Gel Time (150g mass): 30 minutes @ 77°F (ASTM

D2471)

**Cure Time Between Coats:** 4-8 hours — no sanding required

Minimum Cure for Use: 3-5 days **Full Cure Time:** 5-7 days

> Resin Density: 9.7 lbs./gallon @ 77°F Hardener Density: 8.1 lbs./gallon @ 77°F

8,000-11,000 cP @ 77°F (ASTM Resin Viscosity:

Hardener Viscosity: 2,000-3,300 cP @ 77°F (ASTM

2196)

Mix Ratio (By Weight): 100A:83B (Calculated) Mix Ratio (By Volume): 1A:1B (Calculated)

> Mixed Viscosity: 3,500 cP @ 77°F (ASTM D2196)

> > Shelf Life: At least 1 year (under proper

storage conditions)

### **PHYSICAL DATA:**

Cured Color/Finish: Clear, High Gloss

> Components: Two — Epoxy Resin (Part A),

> > Hardener (Part B

Units: 2-Quarts, 2-Half-Gallons, 2-

Gallons

UV Stable:

Izod Impact, Notched: .76 ft.-lb./in (ASTM D256) Tensile Strength: 7,400 psi (ASTM D638) 382,000 psi (ASTM D638) Tensile Modulus:

Tensile Elongation: 5.9% (ASTM D638) HDT (Room Temperature Cure): 118°F (ASTM D648)

HDT (Positive Cure): 124°F (ASTM D648) 10,400 psi (ASTM D695) Compressive Strength: Flexural Strength: 12,800 psi (ASTM D792)

Flexural Modulus: 370,000 psi (ASTM D790) **Cured Density:** 1.11 g/cm3 (ASTM 792) Volumetric Yield: 25.0 in3/lb. (ASTM D792) Volumetric Shrinkage: 3.85% (ASTM D792/D1475)

> Hardness: 82 Shore D (ASTM D2240)