



# TOTALBOAT FLOTATION FOAM (2 & 6 LB.)

- 2-Part polyurethane foam
- Available in 2 lb. or 6 lb. density
- Easy 1:1 mix ratio
- Meets USCG Regulation #33 CFR 183.114
- Reaches full expansion in minutes

TotalBoat Flotation Foam is a two-part expanding polyurethane marine flotation foam for permanent flotation, thermal insulating, and soundproofing. Its easy-flowing formula conforms quickly to fill the cavity it's poured into. Available in 2 lb. or 6 lb. density, in 2-Quart and 2-Gallon kits.

**CLEANUP SOLVENTS:** Acetone. Once cured it must be mechanically removed.

**THINNER/REDUCER SOLVENTS:** Do not thin this product.

**ACCEPTABLE SUBSTRATES (when a bond to the substrate is desired):** Wood, properly prepared metals, fiberglass, or other FRP materials.

**PRODUCT APPLICATIONS:** TotalBoat Flotation Foam is pour foam that can be used for flotation purposes, insulation (thermal or sound), gap filling, or molding. Once cured, it is a very dimensionally stable, solvent and mildew resistant material that can be primed, painted, carved, cut, or coated with epoxy or polyester resin.

**2 LB. FOAM:** Provides greater expansion, increased flotation, sound and thermal insulation properties, and lower density. Yields roughly 2 ft<sup>3</sup> per 2-quart kit and 8 ft<sup>3</sup> per 2-gallon kit.

**6 LB. FOAM:** Provides greater strength and structural properties than the 2 lb. density foam, while still providing good flotation properties, as well as sound and thermal insulation. Yields roughly 3/4 ft<sup>3</sup> per 2-quart kit and 3 ft<sup>3</sup> per 2-gallon kit.

## PERSONAL SAFETY:

Always use proper Personal Protective Equipment when handling this product. Refer to the TotalBoat Flotation Foam Safety Data Sheets for more info.

## EXOTHERMIC REACTION!

The cure of TotalBoat Flotation Foam is an

exothermic reaction and will generate heat. It is not uncommon for a larger mass of mixed Flotation Foam to reach 130°F or higher during the cure cycle.

## SURFACE PREPARATION

### FIBERGLASS, WOOD SUBSTRATES:

- The substrate should be clean and free of any dust, dirt, grease, oil, water, wax, or other contaminants.
- Sand the surface with 80-grit sandpaper and remove all sanding residue.
- Wipe the surface with a clean, lint-free cotton rag dampened with acetone. Do NOT use a synthetic rag for this application.
- Allow the surface to dry completely before dispensing or mixing the foam.

### METAL SUBSTRATES:

- The substrate should be clean and free of any dust, dirt, grease, oil, water, wax, or other contaminants.
- Sand or grind the surface with 80-grit sandpaper and remove all sanding residue.
- Wipe the surface with a clean, lint-free cotton rag dampened with acetone. Do NOT use a synthetic rag for this application.
- **ALUMINUM:** It is strongly recommended to apply TotalBoat Aluminum Boat Etch Wash to the surface as directed on the label before mixing or pouring Flotation Foam.
- **FERROUS STEEL:** It is strongly recommended to apply TotalBoat Rust Primer to the surface as directed on the label before mixing or pouring Flotation Foam.
- Mix and pour TotalBoat Flotation Foam as soon as possible (within 60-minutes of performing surface prep procedures).

### WHEN POURING INTO A MOLD:

- Molds should be cleaned, and any dust, dirt, or other substances should be removed from the mold.
- An appropriate mold release agent should be applied into the mold before pouring. When a mold release wax is used, apply and buff out 4-5 coats to ensure a smooth surface that will ensure a proper release.

## APPLICATION CONDITIONS

### VERY IMPORTANT — READ BEFORE DISPENSING OR MIXING!

- For best results, ensure that the ambient air, substrate, and liquid foam components are all 70-85°F before starting. The expansion rate will be greatly reduced if either of these items is less than the specified temperature.
- If the ambient temperature is too low, the foam will initially expand to a normal yield, then shrink as it finishes curing.



# TOTALBOAT FLOTATION FOAM (2 & 6 LB.)

- If possible, avoid dispensing or applying Flotation Foam during times of high humidity (90% or greater).

---

## APPLICATION

### **VERY IMPORTANT — THE REACTION OCCURS VERY QUICKLY SO BE PREPARED!**

- Only open the caps to the Flotation Foam bottles when necessary to dispense the product. Leaving them open may expose the product to moisture in the air or other contaminants that can reduce the expansion of the product in the future.
- Ensure that the liquid foam components, ambient temperature, and substrate all meet the temperature requirements before dispensing.
- Ensure that the substrate, mixing cups, or any other tools coming in contact with the mixed foam can safely tolerate up to 130°F.
- Have any necessary tools handy before dispensing or mixing.
- Dispense Part A and Part B at a 1:1 ratio by volume (100:104 (A to B) by weight) into an appropriate mixing cup.
- Immediately and quickly mix the two components vigorously, whipping it for 25-30 seconds, scraping the bottom and sides of the mixing cup as well. The mixture will be a consistent cream color when it is properly mixed.
- If the foam is not mixed properly before it is poured, there may be noticeable striations, or color differences in areas of the foam. This may lead to unsatisfactory expansion and yield, or it may remain tacky after it has cured.
- Foam may start to heat up and expand in as little as 20 seconds if mixed under warmer environmental conditions.
- Pour the foam. The foam will start to react, increasing in temperature, and start to rise.
- The foam will rise for roughly 4-5 minutes and then it will begin to cool.
- If the foam was poured into a mold, it can easily be demolded 5-20 minutes after being poured.

---

## AFTER THE FOAM HAS FINISHED CURING

Once fully cured, the foam can be cut, carved, overcoated with more foam, primed, painted, or coated with epoxy or polyester resin.

---

## PRODUCT STORAGE

- Following proper storage guidelines will promote the best chance for success with this product. Failure to store the product as directed may not yield proper expansion.
- The bottles must be stored with the caps on tightly to protect the liquid components from ambient moisture or dust/debris.
- Always keep the caps on the bottles when they are not actually being dispensed. Do not allow the bottles to sit without caps on, including between batches.
- Store both components between 65-95°F.
- DO NOT allow this product to freeze.
- The bottles may appear to expand while in storage, this is normal. Do not relieve the pressure—only open the containers when the product is being dispensed for use.



# TOTALBOAT FLOTATION FOAM (2 & 6 LB.)

## APPLICATION DATA:

	2 LB. DENSITY	6 LB DENSITY
<b>Mix Ratio by Volume:</b>	1:1 (Part A to Part B)	1:1 (Part A to Part B)
<b>Mix Ratio by Weight:</b>	100:104 (Part A to Part B)	100:104 (Part A to Part B)
<b>Viscosity (@ 77°F):</b>	150-250 (Part A), 400-800 (Part B)	150-250 (Part A), 600-900 (Part B)
<b>Application Conditions:</b>	70-85°F	70-85°F
<b>Cream Time:</b>	45 seconds	65 seconds
<b>Gel Time:</b>	235 seconds	150 seconds
<b>Rise Time:</b>	260-300 seconds	200-250 seconds
<b>Demold Time:</b>	5-20 minutes	5-20 minutes
<b>Units of Measure:</b>	2-quart kit, 2-gallon kit	2-quart kit, 2-gallon kit
<b>Storage:</b>	Store between 65-90°F. Keep containers sealed to protect the material from moisture. DO NOT FREEZE!	

## PHYSICAL DATA:

	2 LB. DENSITY	6 LB. DENSITY
<b>Components:</b>	Two	Two
<b>Color (Liquid Form):</b>	Transparent brown/amber (Parts A & B)	Transparent brown/amber (Parts A & B)
<b>Color (Cured Form):</b>	Cream or amber	Cream or amber
<b>Specific Gravity (Liquid Form):</b>	1.24 (Part A), 1.18 (Part B)	1.24 (Part A), 1.18 (Part B)
<b>Liquid Density (lbs./Gallon):</b>	9.92 (Part A), 9.44 (Part B)	9.92 (Part A), 9.44 (Part B)
<b>Cured Density*:</b>	2.0 lbs./ft <sup>3</sup>	6.0 lbs./ft <sup>3</sup>
<b>Closed Cell Content*:</b>	92-96%	92-96%
<b>Compressive Strength (Parallel) (ASTM D-1621)*:</b>	31 psi	80 psi
<b>Compressive Strength (Perpendicular) (ASTM D-1621)*:</b>	25 psi	55 psi
<b>Shear Strength*:</b>	35 psi (ASTM D-1623)	70 psi (ASTM C-273)
<b>Maximum Service Temperature:</b>	200°F	200°F
<b>Yield*:</b>	2 ft <sup>3</sup> (2-quart kit), 8 ft <sup>3</sup> (2-gallon kit)	3/4 ft <sup>3</sup> (2-quart kit), 3 ft <sup>3</sup> (2-gallon kit)
<b>Flotation*:</b>	75 lbs./quart kit, 300 lbs./gallon kit	23 lbs./quart kit, 92 lbs./gallon kit
<b>Water Absorption*:</b>	≤ 0.06 lbs./sq. ft.	≤ 0.06 lbs./sq. ft.
<b>Coast Guard Approved for Marine Applications§:</b>	Yes	Yes
<b>Insulation R-Value*:</b>	6.5-6.6 per inch	5.0-5.5 per inch
<b>Solvent Resistance:</b>	Excellent	Excellent
<b>Mold/Mildew Resistance:</b>	Excellent	Excellent
<b>UV Stable:</b>	Yes	Yes
<b>Food Safe/Food Contact Safe (Once Cured):</b>	No	No
<b>Contains CFC or Other Ozone Depleting Chemicals:</b>	No	No

\* When Properly Mixed and Cured Under Optimal Environmental Conditions

§ Meets MIL-P-21929C in accordance with 46 CFR 160.035-3(u)(7) and FR meets MIL-F-83671 ¶ 3.13