



**TECHNICAL DATA BULLETIN**

## TOTALBOAT TROPICAL HARDENER

TotalBoat Epoxy Resin with TotalBoat Tropical Hardener is an extra slow epoxy laminating resin system that may be used for a wide variety of applications in extremely warm and/or humid conditions when extended working time is desired at room temperature. It has a simple 3 to 1 mix ratio by volume, easily wets out fiberglass fabric and provides good moisture resistance for bonding and barrier coating applications. Not intended for clear coating.

### HANDLING PROPERTIES

	<u>VALUE</u>	<u>TEST METHOD</u>
Mix Ratio By Weight	100A : 28B	Calculated
Mix Ratio By Volume	3A : 1B	Calculated
Initial Mixed Viscosity at 75°F, cP	650	ASTM D2196
Pot Life at 75°F, 150g mass, min.	46	ASTM D2471
Work Life at 75°F, Thin Film, hrs.	3-4	
Set Time at 75°F, Thin Film, hrs.	20-24	
Cure Time at 75°F, Thin Film, days	4-7	
Minimum Recommended Temp, °F	70	

### PHYSICAL PROPERTIES

	<u>VALUE</u>	<u>TEST METHOD</u>
Color	Clear amber	Visual
Tensile Strength, psi	6,800	ASTM D638
Tensile Modulus, psi	390,000	ASTM D638
Tensile Elongation, %	6.6	ASTM D638
Heat Deflection Temperature, °F	123	ASTM D648
Compressive Strength, psi	11,900	ASTM D695
Flexural Strength, psi	13,800	ASTM D790
Flexural Modulus, psi	406,000	ASTM D790
Cured Density, g/cm <sup>3</sup> (lbs/in <sup>3</sup> )	1.15 (0.041)	ASTM D792
Volumetric Yield, in <sup>3</sup> /lb	24.1	ASTM D792
Volumetric Shrinkage, %	4.0	ASTM D792/D1475
Hardness, Shore D	85	ASTM D2240





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### **MIXING AND HANDLING:**

For best results, use this product at or above 70°F. Surfaces should be clean, dry, and sanded before application to remove dirt, dust, grease, loose paint, oils or other contaminants. Add the hardener to the resin at the specified mix ratio and mix for 2 minutes or until mixture is thoroughly blended. Always use clean dry tools for mixing and applying. Cure time is faster at warmer temperatures and slower at cooler temperatures.

### **STORAGE:**

Store at 60-90°F in a dry place. After use, tightly reseal all containers. Store products on a raised surface off the floor during cold weather and avoid storing near outside walls or doors. Epoxy resins that are contaminated with dust or moisture, or are subjected to low temperatures may crystallize. Do not use material that has any sign of crystallization until it has been liquified. A crystallized resin or hardener can be returned to its original state by heating the material to 140°F to 150°F and stirring until it returns to the liquid state.

### **SAFETY HANDLING:**

Work in well-ventilated areas using gloves, eye protection and clothing protection. Avoid contact to the skin and eyes. Avoid clothing contamination. Wash thoroughly after handling. These products may cause skin and respiratory allergic reactions. Consult Safety Data Sheets for complete precautions with this product.

**Jamestown Distributors has experience only in the compounding of resins and hardeners and not in the actual manufacture of tools or parts. Each piece is different. The user should run tests to assure the suitability of the system for use in a particular application. The test data and results set forth herein are based on laboratory work and do not necessarily indicate the results that the buyer or user will attain.**

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