



TECHNICAL DATA BULLETIN

TRADITIONAL 5:1 EPOXY RESIN

TotalBoat 5:1 Epoxy Resin is suitable for a wide range of boat building and repair projects. This versatile epoxy resin is designed for use with either the TotalBoat Slow Hardener or TotalBoat Fast Hardener, but is also 100% compatible with all leading traditional marine 5:1 epoxy systems. It is a clear resin that bonds with fiberglass, reinforcing fabrics, wood and metals. When combined with any additional fillers, TotalBoat resin creates an excellent adhesive, filleting, and fairing compound. TotalBoat 5:1 cures to a high strength, clear plastic solid with excellent moisture resistance. Once cured, it can be sanded and shaped. Designed to easily wet-out and bond with fiberglass or other fabrics. It has excellent thin-film characteristics to easily flow out and self-level, making any laminating job easy.

HANDLING PROPERTIES			
	<u>FAST</u>	<u>SLOW</u>	<u>Test Method</u>
Mix Ratio By Volume	5A : 1B	5A : 1B	Calculated
Mix Ratio By Weight	100A : 18B	100A : 18B	Calculated
Initial Mixed Viscosity at 75°F, cP	1,000	700	ASTM D2196
Pot Life at 75°F, 150g mass, min.	12	20	ASTM D2471
Work Life at 75°F, Thin Film, min.	60	90	
Set Time at 75°F, Thin Film, hrs.	6	10	
Cure Time at 75°F, Thin Film, days	1-4	1-4	
Minimum Recommended Temp, °F	40	60	

PHYSICAL PROPERTIES			
	<u>FAST</u>	<u>SLOW</u>	<u>Test Method</u>
Color	Amber	Amber	Visual
Tensile Strength, psi	8,000	7,500	ASTM D638
Tensile Modulus, psi	410,000	460,000	ASTM D638
Tensile Elongation, %	3.5	4.5	ASTM D638
Heat Deflection Temperature, °F	120	125	ASTM D648
Compressive Strength, psi	11,500	11,500	ASTM D695
Flexural Strength, psi	14,400	12,000	ASTM D790
Flexural Modulus, psi	460,000	450,000	ASTM D790
Cured Density, g/cm ³	1.18	1.18	ASTM D792
Volumetric Yield, in ³ /lb	23.5	23.5	ASTM D792
Volumetric Shrinkage, %	4.4	4.4	
Hardness, Shore D	84	83	ASTM D2240





INSTRUCTIONS FOR USE:

SURFACE PREPARATION: All surfaces must be clean, dry and free of surface contamination. Light sanding is recommended, followed by an oil-free solvent wipe or a clean cloth moistened with either isopropyl alcohol or plain water to remove dust. Aluminum should be etched prior to bonding. Porous surfaces should be precoated with unthickened epoxy/hardener. **MIXING:** Mix ratio 5:1 (five parts RESIN to one part HARDENER). Mix for 1-2 minutes, add fillers if needed. The cure reaction of TotalBoat Epoxy is an exothermic (heat-producing) reaction. The peak exotherm will vary according to ambient temperature and choice of hardener. For more information, please call the Jamestown Distributors Tech Team at 1-800-497-0010 or visit us online at www.JamestownDistributors.com.

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 (SDS) for complete health and safety information.

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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