



TECHNICAL DATA BULLETIN

HIGH PERFORMANCE EPOXY SYSTEM

TotalBoat High Performance Epoxy Resin combined with TotalBoat High Performance Fast, Medium, or Slow Hardener is a non-blushing, low-viscosity, low-odor epoxy laminating resin system that may be used for a wide variety of applications. It has a simple 2 to 1 mix ratio by volume, easily wets out fiberglass fabric and requires no messy wash downs. When combined with any additional fillers, TotalBoat High Performance Epoxy creates an excellent adhesive, filleting, and fairing compound.

HANDLING PROPERTIES

	<u>FAST</u>	<u>MEDIUM</u>	<u>SLOW</u>	<u>Test Method</u>
Resin Density at 77°F, lbs/gal	9.3	9.3	9.3	ASTM D1475
Hardener Density at 77°F, lbs/gal	8.6	8.4	8.4	ASTM D1475
Resin Viscosity at 77°F, cP	1,000	1,000	1,000	ASTM D2196
Hardener Viscosity at 77°F, cP	470	400	400	ASTM D2196
Mix Ratio By Volume	2A : 1B	2A : 1B	2A : 1B	Calculated
Mix Ratio By Weight	100A : 46B	100A : 45B	100A : 45B	Calculated
Initial Mixed Viscosity at 77°F, cP	650	600	600	ASTM D2196
Gel Time at 77°F, 150g mass, min.	10	25	40	ASTM D2471
Tack-Free Time at 77°F, hrs.	2	3	5	Thin Film
Full Cure at 77°F, days	2	3.5	5	
Minimum Recommended Temp., °F	55	55	55	

PHYSICAL PROPERTIES

	<u>FAST</u>	<u>MEDIUM</u>	<u>SLOW</u>	<u>Test Method</u>
Color	Clear	Clear	Clear	Visual
Izod Impact, Notched, ft-lb/in	1.06	0.78	0.89	ASTM D256
Tensile Strength, psi	7,700	8,000	7,300	ASTM D638
Tensile Modulus, psi	380,000	390,000	360,000	ASTM D638
Tensile Elongation, %	7.5	7.0	6.7	ASTM D638
Heat Deflection Temperature, °F	126	126	126	ASTM D648
Compressive Strength, psi	9,500	9,900	8,900	ASTM D695
Flexural Strength, psi	11,600	11,600	10,200	ASTM D790
Flexural Modulus, psi	330,000	360,000	330,000	ASTM D790
Cured Density, g/cm ³ (lbs/in ³)	1.14 (0.041)	1.13 (0.041)	1.13 (0.041)	ASTM D792
Volumetric Shrinkage, %	4.4	4.4	3.1	ASTM D792/1475
Hardness, Shore D	84	83	83	ASTM D2240
Tg, Midpoint, °F	133	133	132	ASTM D3418



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 2:1 (two 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 Total Support Team at 1-800-497-0010, or visit us online at TotalBoat.com.

STORAGE:

Store at 60-90°F in a dry place. After use, tightly reseal all containers. During cold weather, store products on a raised surface off of the floor, and avoid storing near outside walls or doors. Epoxy resins that are contaminated with dust or moisture, or that are subjected to low temperatures, may crystallize. Do not use material that has any sign of crystallization until it has been liquefied. 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, and wear protective gloves, eye protection, and clothing protection. Avoid contact with the skin and eyes. Avoid clothing contamination. Wash hands thoroughly after handling. These products may cause skin and respiratory allergic reactions. Consult Safety Data Sheets (SDS) for complete precautions with this product.