

### SYSTEM BENEFITS:

UltraClear Epoxy Traditional Marine Resin with Fast, Slow, or Clear Hardener is a low viscosity epoxy resin system for marine and boat applications. Our products are proudly Made in the USA.

- Familiar 5:1 or 3:1 mix ratios
- Cost effective laminating system for a variety of parts including wood laminating
- Choose the speed of hardener based on your needs

### HANDLING PROPERTIES

	FAST	SLOW	CLEAR	Test Method
Resin Density at 25°C, lbs/gal	9.5	9.5	9.5	ASTM D1475
Hardener Density at 25°C, lbs/gal	8.8	8.5	8.6	ASTM D1475
Resin Viscosity at 25°C, cP	600	600	600	ASTM D2196
Hardener Viscosity at 25°C, cP	800	130	350	ASTM D2196
Mix Ratio by Weight	100A : 18B	100A : 18B	100A : 30B	Calculated
Mix Ratio by Volume	5A : 1B	5A : 1B	3A : 1B	Calculated
Initial Mixed Viscosity 25°C, cP	650	400	900	ASTM D2196
Gel Time at 25°C, 150g mass, min.	13	24	20	ASTM D2471
Set Time at 75°F, Thin Film, hrs.	6	10	10	
Cure Time at 75°F, Thin Film, days	1-4	1-4	1-4	
Minimum Recommended Temp, °F	60	60	60	

### PHYSICAL PROPERTIES

	510 FAST	520 SLOW	320 CLEAR	Test Method
Color	Amber	Amber	Clear	Visual
Izod Impact, Notched, ft-lb/in	0.61	0.76	0.76	ASTM D256
Tensile Strength, psi	9,500	8,200	9,400	ASTM D638
Tensile Elongation, %	5.8	5.9	6.3	ASTM D638
HDT, Room Temp Cure, °F	129	126	128	ASTM D648
HDT, Room Temp Cure, °F	142	139	167	ASTM D648
Compressive Strength, psi	12,200	9,900	13,300	ASTM D695
Flexural Strength, psi	15,300	12,300	16,100	ASTM D790
Flexural Modulus, psi	493,000	416,000	429,000	ASTM D790
Cured Density, g/cm <sup>3</sup> (lbs/in <sup>3</sup> )	1.18 (9.8)	1.18 (9.8)	1.17 (9.8)	ASTM D792
Volumetric Shrinkage, %	4.2	5.0	4.9	ASTM D792/2196
Hardness, Shore D	83	83	88	ASTM D2240

## **INSTRUCTIONS FOR USE:**

Combine the resin and the hardener at the specified mix ratio. Using the recommended mix ratio is VERY important when using epoxy. DO NOT deviate to attempt to speed up or slow down the gel time. Mix 1-2 minutes while scraping sides and bottom of container occasionally until fully blended with no streaks or striations. Always use clean dry tools for mixing and applying. Material temperatures should not be below 60°F when mixing.

## **STORAGE AND CRYSTALLIZATION:**

Store between 60-90°F in a dry place. After use, tightly reseal all containers and store products on a raised surface during cold weather and avoid storing near outside walls or doors. If available, purge with dry nitrogen to preserve color and minimize moisture contamination. Do not allow to freeze during winter storage. Do not use material with any signs of crystallization such as solid chunks, grainy texture or white color. Crystallization can be reversed by heating the material to 125-140°F, and stirring occasionally, until all crystals dissolve.

## **SAFETY HANDLING:**

Wear protective gloves, clothing, and eye/face protection. Use only outdoors or in a well-ventilated area. Avoid contact to the skin and eyes. Avoid breathing dust, fumes, gas mist, vapors and spray. Wash hands thoroughly after handling. Take off contaminated clothing and wash before reuse. These products may cause skin and respiratory allergic reactions. Consult product Safety Data Sheets for complete precautions for use of this product.

UltraClear Epoxy LLC. 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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