

E-Z POxy

TECHNICAL DATA BULLETIN

E-Z POXY EPOXY LAMINATING RESIN SYSTEMS E-Z 10A RESIN / E-Z 83B, E-Z 84B & E-Z 87B HARDENER

E-Z Poxy is widely recognized as the premier epoxy laminating resin system for the sport aviation and experimental aircraft markets. Endurance Technologies, Inc. is proud to be a leading resin supplier to those markets.

HANDLING PROPERTIES

	<u>VALUE</u> <u>E-Z 83B</u>	<u>VALUE</u> <u>E-Z 84B</u>	<u>VALUE</u> <u>E-Z 87B</u>	<u>TEST METHOD</u>
Resin Viscosity at 25°C, cP	1500	1500	1500	ASTM D2196
Hardener Viscosity at 25°C, cP	410	140	830	ASTM D2196
Mixed Viscosity at 25°C, cP	1300	800	1500	ASTM D2196
Pot Life at 25°C, hours	2	2	5	
Tack Free Time at 25°C, hours	4	8	8	
Cure Time at 25°C	24 Hours	3 days	3 days	
Mix Ratio By Weight	100A : 44B	100A : 44B	100A : 44B	Calculated
Mix Ratio By Volume	100A : 47B	100A : 47B	100A : 47B	Calculated

PHYSICAL PROPERTIES

	<u>VALUE</u> <u>E-Z 83B</u>	<u>VALUE</u> <u>E-Z 84B</u>	<u>VALUE</u> <u>E-Z 87B</u>	<u>TEST METHOD</u>
Tg, RT Cure, °F	151	151	142	ASTM D3418
Tg, Post Cure, °F	196	196	196	ASTM D3418
Tensile Elongation, %	3.5	3.5	3.9	ASTM D638
Tensile Strength, RT Cure, psi	8,200	8,100	8,400	ASTM D638
Tensile Strength, Post Cure, psi	10,000	10,000	10,000	ASTM D638
Tensile Modulus, psi	480,000	420,000	400,000	ASTM D638
Compressive Strength, psi	14,000	14,000	14,000	ASTM D695
Density, Cured, g/cm ³ (lbs/in ³)	1.14(0.041)	1.13(0.041)	1.14(0.041)	ASTM D792
Density, Cured, in ³ /lb	24.3	24.5	24.3	ASTM D792
Linear Shrinkage, 4 days, 23°C, %	0.10	0.10	0.10	

E-Z POXY

SYSTEM POST CURE OPTIONS:

Select one of the following cure schedules depending on the available time, the physical properties of the master and the desired physical properties of the final part. Post cure the structure to obtain maximum physical properties from the system. Please contact technical service if you find it necessary to have a different post cure schedule.

CURE INCREMENTS:

HARDENER:	E-Z 83B	E-Z 84B	E-Z 87B
24 hrs. at 77°F (25°C)	X (S)		
3 days at 77°F (25°C)		X (S)	X (S)
4 hrs. at 150°F (66°C)	X (U)	X (U)	X (U)

S = Supported

U = Unsupported

TOOL, MOLD AND/OR PATTERN PREPARATION:

Wood structures should be sealed. Gypsum molds should be dried to remove free moisture and preferably sealed with the PFP process or appropriate sealer. All non-porous tools, molds or patterns should be treated with release or parting agents which can withstand the temperature that the part will be cured at while remaining in a supported position.

STORAGE AND HANDLING:

Store at 60-100°F in a dry place. After use, tightly reseal. (This product may crystallize during storage. If crystallized, vent container and heat to 125-145°F until crystals dissolve. Stir well after product has liquefied.) Always use clean dry tools for mixing and applying. Mix according to the mix ratio stated for the specific product as listed on the front page. Mix together thoroughly and use immediately. Material temperatures should not be below 65°F when mixing.

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 Material Safety Data Sheets for complete precautions with this product.

Endurance Technologies, Inc. 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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