



PT2876 A/B

High Temperature Epoxy Laminating System

DESCRIPTION

PT2876 A/B is an unfilled amber epoxy laminating system designed for the highest service temperature applications. The extended working time of PT2876 A/B allows enough time for vacuum-bagging, yet will set well enough at room temperature to allow the laminate to be demolded from the pattern for post curing. Long tool life is obtainable for autoclave service temperatures up to 450°F., if proper fabrication techniques are used during construction. This system will easily wet-out carbon and fiberglass tooling fabrics. It can also be used for making high-temperature service composite parts.

PRODUCT SPECIFICATIONS

	PT2876 Part A	PT2876 Part B	ASTM Method
Color	Amber	Amber	Visual
Viscosity, @77°F, centipoise	3,200 cps	3,000 cps	D2392
Specific Gravity, gms./cc	1.17	0.98	D1475
Mix Ratio	100 A : 46 B, By Weight		PTM&W
Pot Life, 4 fl.oz. Mass @ 77°F	4.5 - 5 hours		D2471

HANDLING and CURING

PT2876 A/B may be demolded from the pattern after a minimum of 24 hours at $\geq 75^{\circ}\text{F}$. Care should be taken during removal, as the system may retain some brittleness at this stage. To avoid this brittleness, allow the resin to gel hard, attach backup structure, then place the laminate in a cold oven and heat to 100-120°F for a minimum of 12 hours. Allow to cool to RT and demold. Post cure the tool by placing into a cold oven and raise to 150°F for 6 hours, raise to 450°F in 100°F increments, dwelling for 4 hours at each stop. Turn off oven and allow it to cool to RT.

PT2876 can develop considerable heat buildup in larger masses, so it is advisable to mix smaller quantities at a time to minimize this condition. If larger batches are mixed at once, divide the mixed batch among several workers to again minimize the heat buildup. Avoid leaving mixed quantities of material sitting in a container after a job is finished, as over time, the resulting exotherm can cause the material to boil and give off noxious, potentially irritating fumes.

PACKAGING WEIGHTS

	Gallon Kit	Pail Kit	Drum Kit
PT2876 Part A	8.75 lb.	43 lb.	435 lb.
PT2876 Part B	4 lb.	20 lb.	200 lb.
Kit	12.75 lb.	63 lb.	635 lb.

TYPICAL MECHANICAL PROPERTIES

		PT2876 A/B			ASTM Method
Mix Ratio, By Weight		100 A : 46 B			PTM&W
Color		Amber			Visual
Mixed Viscosity, @77°F, centipoise		2,700 cps			D2393
Pot Life, 4 fl. Oz. Mass, @77°F		4.5 - 5 hours			D2471
Cured Hardness, Shore D		90 Shore D			D2240
Specific Gravity, grams, cc		1.10			D1475
Density,	lb./cu. Inch lb. / gallon	0.0398 9.2			D792
Specific Volume, cu. in./lb.		25.1			
	Cast Samples	Laminate Samples (Fabric Type)			
		(Style 7500 Glass) 38% Resin Content	(Style 7781 Glass) 35% Resin Content	(6K Carbon) 45% Resin Content	
Tensile Strength, psi	5,442 psi 38 MPa	29,213 psi 201 MPa	35,448 psi 244 MPa	61,615 psi 425 MPa	D638
Elongation at Break, %	1.060% Yield 1.095% Break	1.59% Break	1.38% Break	1.05% Break	
Tensile modulus, psi	525,074 psi 3,621 MPa	2,216,990 psi 15,290 MPa	2,841,195 psi 19,694 MPa	6,453,940 psi 44,510 MPa	
Flexural Strength, psi	15,555 psi 107 MPa	43,415 psi 299 MPa	54,306 psi 375 MPa	76,348 psi 527 MPa	D790
Flexural Modulus, psi	560,327 psi 3,864 MPa	2,320,447 psi 16,003 MPa	2,893,655 psi 19,956 MPa	5,776,906 psi 39,841 MPa	
Compressive Strength, psi	23,381 psi 161.2 MPa				D695
Compressive Modulus, psi	474,385 psi 3,271 MPa				
Glass Transition Temperature, DMA: T _g , E' (Onset) T _g , Peak		Onset: 204°C (399°F) - ASTM D7028 Peak: 236°C (457°F) - ASTM D4065			

SAFETY and HANDLING

PTM&W epoxy products are made from raw materials carefully chosen to minimize or even eliminate toxic chemicals, and therefore offer the user high performance products with minimum hazard potential when properly used. Generally, the PTM&W epoxy resins and hardeners will present no handling problems if users exercise care to protect the skin and eyes, and if good ventilation is provided in the work areas. However, breathing of mist or vapors may cause allergenic respiratory reaction, especially in highly sensitive individuals. As such, avoid contact with eyes and skin, and avoid breathing vapors. Wear protective rubber apron, clothing, nitrile rubber gloves, face shield or other items as required to prevent contact with the skin. In case of skin contact, immediately wash with soap and water, followed by a rinse of the area with vinegar, and then a further wash with soap and water. The vinegar will neutralize the hardener and lessen the chances of long term effects. Use goggles, a face shield, safety glasses or other items as required to prevent contact with the eyes. If material gets into the eyes, immediately flush with water for at least 15 minutes and call a physician. Generally, keep the work area as uncluttered and clean as possible, and clean up any minor spills immediately to prevent accidental skin contact at a later time. Keep tools clean and properly stored. Dispose of trash and empty containers properly. Do not use any of these types of products until Material Safety Data Sheets have been read and understood.

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