PT2114 A/B
White Room Temperature Epoxy Laminating Resin

DESCRIPTION

PT2114 is a room temperature curing laminating resin for the construction of very stable tooling. PT2114 has excellent fabric penetration capabilities for easy, labor saving use. It exhibits minimum drain on vertical surfaces, which works well on multiple contoured configurations. Two hardeners are available for use with PT2114 resin for different sized laminates. Both offer similar handling properties and excellent cured physicals.

PT2114 has seen wide usage in applications such as:

Hammer Forms **Assembly Fixtures** **Drill Fixtures**
Master Gages **Checking Fixtures** **Checking Gages**
Duplicating Masters **Sandwich Panels** **Prototype Fabrications**
High Strength Laminated Tooling

PRODUCT SPECIFICATIONS

	PT2114-A	PT2114-B	PT2114-B1	ASTM Method
Color	White	Amber	Amber	Visual
Viscosity,	4,000 cps	800 cps	500 cps	D2392
Specific Gravity, gms./cc	1.33	1.02	1.01	D1475
Mix Ratio		100 : 18 By Weight		PTM&W
Pot Life, 4 fl.oz. Mass @ 77°F		30 min.	50 - 60 min.	D2471

HANDLING and CURING

Both PT2114 hardeners will provide good cures at ambient temperatures. With PT2114 Part B, a room temperature cure of 18 to 24 hours, depending upon shop temperatures, is sufficient to allow handling of the laminate. When using PT2114 Part B1, particularly in colder temperatures, at least 24 hours cure will be required to develop good properties. Full cure can be accelerated by 1 to 2 hours at 150°F after an overnight cure at ambient temperature. Heat curing will usually increase shrinkage somewhat, so care should be taken to control the heat cure to minimize stress buildup in the tool.

PACKAGING WEIGHTS

	Quart Kit	Gallon Kit	Pail Kit	Drum Kit
PT2114 Part A	2.25 lb.	9 lb.	40 lb.	500 lb.
PT2114 Part B	.44 lb.	1.65 lb.	7.25 lb.	90 lb.
PT2114 Part B1	.44 lb.	1.65 lb.	7.25 lb.	90 lb.

TYPICAL MECHANICAL PROPERTIES

	PT2114 System*	ASTM Method
Mix Ratio, By Weight	100 : 18 By Weight	PTM&W
Color	White	Visual
Mixed Viscosity, centipoise	3,100 cps	D2393
Cured Hardness, Shore D	88 Shore D	D2240
Specific Gravity, grams, cc	1.38	D1475
Density, lb./cu. Inch lb. / gallon	.0499 11.5	D792
Specific Volume, cu. in./lb.	20.1	
Tensile Strength, psi (2)	29,200 psi	D638
Flexural Strength, psi (2)	32,850 psi	D790
Compressive Strength, psi (1)	21,500 psi	D695
Heat Deflection Temperature, 264 psi	189^{0}F	D648
Coefficient of Thermal Expansion	1.20 x 10^{-5} in./in./ ^{o}F	D696

* These properties were developed with PT2114 Part B, and are typical of PT2114's performance
(1) Cast Bar Sample
(2) These Properties Determined with 1/8" Laminate, Style 7500 Tooling Cloth, Resin Content of 50% - 55%

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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