



# PT1414 A/B

## Abrasion Resistant Epoxy Surface Coat

### DESCRIPTION

PT1414 is a very hard and durable surface coat and casting material for use where high abrasion resistance is desirable. Blue in color, PT1414 is filled with silicon carbide, which imparts outstanding wear resistance to the cured product. PT1414 has extremely high resistance to wear and abrasion. The fully cured surface is very hard and will dull standard machine tools much more rapidly than typical filled epoxies.

The mixed viscosity of PT1414 allows easy application by brush as a surface coat that will hang on a vertical surface. It can also be used to cast die faces up to ½ inch thick. PT1414 is also an excellent adhesive that bonds well to a variety of metallic and composite surfaces. PT1414 has been used extensively for foundry patterns and coreboxes, tracer patterns, die faces, fixtures and a variety of adhesive bonding applications.

### PRODUCT SPECIFICATIONS

	PT1414 Part A	PT1414 Part B	ASTM Method
Color	Blue	Amber	Visual
Viscosity,	65,000 cps	300 cps	D2392
Specific Gravity, gms./cc	1.80	1.08	D1475
Mix Ratio	100 : 10		PTM&W
Pot Life, 4 fl.oz. Mass @ 77°F	30 - 35 minutes		D2471

### HANDLING and CURING

PT1414 A/B will cure completely at room temperature. Typical surface coat applications or castings may be put into service after 24 hours. If shorter cure time is required, allow to gel at room temperature, followed by an oven cure of 2-4 hours at 150°F - 165°F. Heat curing may increase shrinkage.

### PACKAGING WEIGHTS

	Quart Kit	Gallon Kit	Pail Kit
PT Part A	3 lb.	13 lb.	60 lb.
PT Part B	.33 lb.	1.3 lb.	6 lb.
Kit	3.33	14.3 lb.	66 lb.

**TYPICAL MECHANICAL PROPERTIES**

		<b>PT1414 A/B</b>	<b>ASTM Method</b>
<b>Mix Ratio,</b>	<b>By Weight</b>	<b>100 : 10</b>	<b>PTM&amp;W</b>
<b>Color</b>		<b>Blue</b>	<b>Visual</b>
<b>Mixed Viscosity, centipoise</b>		<b>50,000 cps</b>	<b>D2393</b>
<b>Pot Life, 4 fl. Oz. Mass, @77°F</b>		<b>30 - 35 minutes</b>	<b>D2471</b>
<b>Cured Hardness, Shore D</b>		<b>90 Shore D</b>	<b>D2240</b>
<b>Specific Gravity, grams, cc</b>		<b>1.71</b>	<b>D1475</b>
<b>Density,</b>	<b>lb./cu. Inch</b>	<b>.0618</b>	<b>D792</b>
	<b>lb. / gallon</b>	<b>14.3</b>	
<b>Specific Volume, cu. in./lb.</b>		<b>16.2</b>	
<b>Tensile Strength, psi</b>		<b>17,400 psi</b>	<b>D638</b>
<b>Flexural Strength, psi</b>		<b>9,700 psi</b>	<b>D790</b>
<b>Compressive Strength, psi</b>		<b>6,500 psi</b>	<b>D695</b>

**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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