

PT1995 Graphite Filled High Temperature Epoxy Surface Coat

DESCRIPTION

PT1995 is a black, graphite filled surface coat resin with thermal expansion characteristics designed for high performance composite tooling. PT1995 is a thin paste that yields a smooth mixed viscosity suitable for brushing on flat or contoured surfaces. The controlled thixotropy allows easy application, and minimum sag on highly contoured tool surfaces. Its balanced filler content produces a finished surface that is easily scribed, and gives toughness and chip resistance in service. PT1995 cycles very well, and resists stress cracking in the most severe oven or autoclave applications.

There are no restricted or regulated raw materials used in these high temperature products. PT1995 Part A does not contain vinylcyclohexane diepoxide (VCHD), or other hazardous or potentially restricted diluents. The PT1995 Part B hardeners do not contain methylene dianiline (MDA) or other potentially harmful aniline derivatives. They are non-staining, and will not crystallize in normal shipping and storage conditions.

PRODUCT SPECIFICATIONS

	PT1995 Part A	PT1995 Part B	PT1995 Part B1	ASTM Method
Color	Black	Amber	Amber	Visual
Viscosity,	220,000 cps	1700 cps	1200 cps	D2392
Specific Gravity, gms./cc	1.46	1.08	1.0	D1475
Mix Ratio		100 : 12	100 : 13	PTM&W
Pot Life, 4 fl.oz. Mass @ 77°F		50-60 min.	2 - 3 hours	D2471

HANDLING and CURING

When using PT1995 with either Part B or Part B1, that material will gel hard at room temperature, and then can be given a post cure by the recommended schedule for the laminating resin being used.

PACKAGING WEIGHTS

	Gallon Kit	Pail Kit
PT1995 Part A	11 lb.	55 lb.
PT1995 Part B	1.34 lb.	6.6 lb.
PT1995 Part B1	1.5 lb.	7.25 lb.

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TYPICAL MECHANICAL PROPERTIES*

	PT1995 A/B*	ASTM Method	
Color	Black	Visual	
Cured Hardness, Shore D @77°F @300°F	89 Shore D 82 Shore D	D2240	
Specific Gravity, grams, cc	1.39	D1475	
Density, lb./cu. Inch lb. / gallon	.0502 11.6	D792	
Specific Volume, cu. in./lb.	19.9		
Tensile Strength, psi	7,690 psi		
Elongation at Break, %	1.54 % D638		
Tensile modulus, psi	6.58 x 10⁵ psi		
Flexural Strength, psi	12,326 psi	D700	
Flexural Modulus, psi	6.61 x 10 ⁵ psi		
Compressive Strength, psi	20,870 psi	D695	
Glass Transition Temperature, TMA: Tg (Peak)	310°F	D3386	
Coefficient of Thermal Expansion, Range 50°C to 100°C	2.56 x 10 ⁻⁵ in./in./ °F	D696	

^{*}These Properties were Developed with PT1995 Part B, and are Typical of PT1995's Performance.

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 hear ead and understood.

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