

ES6265 High Strength High Temperature Adhesive

DESCRIPTION

ES6265 is a smooth, slightly thixotropic, cream colored paste epoxy adhesive and patching compound designed for general bonding and repair where the bond line will be exposed to elevated temperature in service. ES6265 has very good heat resistance, so it is a good candidate for such uses. ES6265 consists of an off-white resin and a tan hardener that combine readily to form a smooth-consistency, slightly thixotropic paste adhesive which bonds well to a variety of metal and non-metallic surfaces. For example, it has been used extensively for the potting of drill bushings into both metal and composite tools and fixtures, where it holds up very well to the heat generated in that application.

PRODUCT SPECIFICATIONS

	ES6265 A	ES6265 B	ASTM Method
Color	Off White	Tan	Visual
Viscosity, @77oF, centipoise	95,000 cps	Thin Paste	D2392
Specific Gravity, gms./cc	1.61	1.08	D1475
Mix Ratio	100:25 By Weight 3 to 1 By Volume		PTM&W
Pot Life, 4 fl. Oz. Mass @ 77°F	20 - 30 minutes		D2471

PACKAGING WEIGHTS

	Quart Kit	Gallon Kit	Pail Kit
ES6265 A	2.5 lb.	10 lb.	55 lb.
ES6265 B	.66 lb.	2.5 lb.	13.75 lb.
Kit	3.2 lb.	12.5 lb.	68.75 lb.

DIRECTIONS FOR USE

PREPARATION: All surfaces to be bonded or patched must be free of dirt, oil and grease. Sanding or roughening the area to be bonded increases the surface area and enhances the bond.

MIXING: Measure out the correct amount of ES6265 A and B, combine, and mix thoroughly until a uniform color and consistency is reached. Mixfor at least 1 to 2 minutes, scraping the sides and bottom of the container to avoid leaving unmixed material that will cause soft spots in the cured material.

APPLICATION and CURING: Apply mixed material to roughened area of the parts to be bonded. Press surfaces firmly together and let set 6 to 8 hours at 75°F. If necessary, place assembly in a jig or other device to prevent movement during initial curing time. Curing time is 18 to 24 hours at 75°F, or 2 hours at 140°F. The bonded object can be put into light service at this time, however, for maximum strength, wait 24 hours. The material to be bonded may be preheated to accelerate curing time, or very light heat can be applied after the parts have been bonded. For applications where the bond will be subjected to elevated temperatures, an additional heat cure of 4 to 6 hours at 150°F to 200°F will provide additional heat resistance for the adhesive bond.

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TYPICAL MECHANICAL PROPERTIES

		ES6265 A/B	ASTM Method
Mix Ratio, By Weight By Volume		100 : 25 3 to 1	PTM&W
Gel Time, @ 77°F		20 - 25 minutes	D2471
Color		Tan	Visual
Mixed Viscosity, @77oF, centipoise		Thin, Slightly Thixotropic Paste	D2393
Cure Time, @ 77°F @ 140°F		18 - 24 hours 2 hours	PTM&W
Cured Hardness, Shore D		90 Shore D	D2240
Specific Gravity, grams, cc		1.46	D1475
Tensile Strength, psi		6,500 psi	D638
Elongation at Break, %		8 %	D638
Compressive Strength, psi		13,600 psi	D695
Operating Temperature		-50°F - 300°F	PTM&W
Aluminum to Aluminum Tensile Lap Shear	@ 77°F @ 140°F	3,810 psi 2,840 psi	D1002

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, all epoxy resins and hardeners can be irritating to the skin, and prolonged contact may result in sensitization; and 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, gloves, face shield or otheritems 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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