

# ES6240 Toughened, High Peel Strength Epoxy Adhesive

#### **DESCRIPTION**

ES6240 is a two component toughened epoxy adhesive with very good cured properties that provides excellent bonds to a variety of substrates. Its blend of high lap shear and T-Peel values allow superior performance in demanding bonding applications. ES6240 adheres very well to wood, metal, composites and some plastics. The bonded components exhibit tough and durable performance for long term stability in use.

#### **PRODUCT SPECIFICATIONS**

	ES6240 Part A	ES6240 Part B	ASTM Method
Color	White*	Translucent Amber	Visual
Viscosity,	28,000 cps	42,400 cps Gel	D2392
Specific Gravity, gms./cc	1.12	1.10	D1475
Mix Ratio	100 : 48 By Weight; 100 : 50 By Volume		PTM&W
Pot Life, 4 fl.oz. Mass @ 77°F	40 - 45 minutes		D2471

<sup>\*</sup> A Black Version of ES6240 is available by special order. Order as ES6240 Black.

### **DIRECTIONS FOR USE**

**PREPARATION:** All surfaces to be bonded or patched must be free of dirt, oil and grease. The better the surface prep, the better the results! Sanding or roughening the area to be bonded increases the surface area and enhances the bond. See PTM&W Bulletin "Guidelines for Metal Surface Preparation" for more information. **MIXING:** Measure out equal parts of ES6240 A and B, combine, and mix thoroughly until a uniform color and consistency is reached. Mix for 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 for 24 hours or more at 75°F. If necessary, place assembly in a jig or other device to prevent movement during initial curing time. Curing time is 24 to 36 hours at 75°F, or 2 to 4 hours at 140°F. 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.

#### **PACKAGING WEIGHTS**

	Quart Kit	Gallon Kit	Pail Kit
ES6240 Part A	2 lb.	8 lb.	40 lb.
ES6240 Part B	1 lb.	4 lb.	20 lb.
Kit	3 lb.	12 lb.	60 lb.

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Inasmuch as PTM&W Industries, Inc. has no control over the use to which others may put the material, it does not guarantee that the same results as those described hereis will be obtained. The above data was obtained under laboratory conditions, and to the best of our knowledge is accurate. The information is presented in good faith to assist the user in determining whether our products are suitable for his application. No warranty or representation, however is intended or made, nor is protection from any law or patent to be inferred, and all patent rights are reserved. Before using, user shall determine the suitability of the product for his intended use, and user assumes all risk and liability whatsoever in connection therewith. In no event will PTM&W Industries, Inc. be liable for incidental or consequential damages. Buyer's sole and exclusive remedy in such instances shall be limited to replacement of the purchase price.

#### **TYPICAL MECHANICAL PROPERTIES**

	ES6240 A/B	ASTM Method	
Mix Ratio,	100 : 48 By Weight, or 100 : 50 By Volume	PTM&W	
Color	White or Black*	Visual	
Mixed Viscosity, centipoise	72,000 cps	D2393	
Pot Life, 4 fl. Oz. Mass, @77 <sup>o</sup> F	40 - 45 minutes	D2471	
Cured Hardness, Shore D	84 Shore D	D2240	
Cure Time @ 77°F @ 140°F	24 - 36 hours 2 - 4 hours	PTM&W	
Specific Gravity, grams, cc	1.113	D1475	
Density, Ib. / cu. inch	.0402	D700	
Specific Volume, cu. in. / lb.	24.86	- D792	
Tensile Strength, psi	7,458 psi		
Elongation at Break, %	25.2 %	D638	
Tensile Modulus, psi	317,075 psi		
Flexural Strength, psi	11,505 psi	- D790	
Flexural Modulus, psi	343,138 psi		
Compressive Strength, psi	10,388 psi	D695	
Lap Shear, 2024-T3 Aluminum, ASTM D2651 FPL Etch	4,009 psi	D1002	
T-Peel, 2024-T3 Aluminum, ASTM D2651 FPL Etch	26.9 pli	D1876	
Glass Transition Temp., DMA, Tg Peak	186.3 °F	D7028	

<sup>\*</sup> A Black Version of ES6240 is available by special order. Order as ES6240 Black.

#### 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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