



# ES6238 Aluminum Filled Paste Epoxy Adhesive

## DESCRIPTION

ES6238 is a general purpose, aluminum filled, paste epoxy adhesive for metal repair and bonding and many other uses. This adhesive is recommended for general bonding, repair and gap filling on metal, cured plastics and other materials. It has excellent adhesion to metal, glass, wood and reinforced composite materials. ES6238 has a 1 to 1 mix ratio for easy measuring, and the balanced viscosities of the resin and hardener components combine readily for quick, thorough mixing. ES6238 is easily machined and filed when cured.

## PRODUCT SPECIFICATIONS

	ES6238 A	ES6238 B	ASTM Method
Color			Visual
Viscosity, centipoise	Smooth Paste	Smooth Paste	D2392
Specific Gravity, gms./cc			D1475
Mix Ratio	100 : 100 By Weight or Volume		PTM&W
Pot Life, 4 fl. Oz. Mass @ 77°F	15 - 20 minutes		D2471

## PACKAGING WEIGHTS

	Quart Kit	Gallon Kit	Pail Kit
ES6238 A	3 lb.	11 lb.	55 lb.
ES6238 B	3 lb.	11 lb.	55 lb.
Kit	6 lb.	22 lb.	110 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 equal parts of ES6238 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 8 to 10 hours at 75°F. If necessary, place assembly in a jig or other device to prevent movement during initial curing time. Curing time is 8 to 12 hours at 75°F, or 1 hour 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.

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### TYPICAL MECHANICAL PROPERTIES

	ES6238 A/B	ASTM Method
Mix Ratio, By Weight or Volume	100 : 100	PTM&W
Gel Time, @ 77°F	15 - 20 minutes	D2471
Color	Metallic Gray	Visual
Mixed Viscosity, centipoise	Thixotropic Paste	D2393
Cure Time, @ 77°F @ 140°F	8 - 12 hours 1 hour	PTM&W
Cured Hardness, Shore D	86 Shore D	D2240
Specific Gravity, grams, cc	1.54	D1475
Tensile Strength, psi	5,500 psi	D638
Elongation at Break, %	7 %	D638
Compressive Strength, psi	14,500 psi	D695
Operating Temperature	-50°F - 250°F	PTM&W
Aluminum to Aluminum Tensile Lap Shear @ 77°F @ 140°F	2,900 psi 1,200 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 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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