



# ES6209

## Liquid High Strength Epoxy Adhesive

### DESCRIPTION

ES6209 is a translucent, straw colored, two component epoxy adhesive with a thick, liquid consistency. ES6209 is an excellent structural adhesive for use when good flow and surface wetting are required. Though pourable, ES6209 has a controlled flow viscosity to minimize run-out from the adhesive joint. The 1 to 1 combining ratio by weight or volume makes it easy to measure and mix. The working time of over an hour provides plenty of time to coat and assemble the materials to be bonded.

### TYPICAL APPLICATIONS

ES6209 has excellent adhesion to the composite and metal parts typically used in vehicle construction. It also bonds rigid foam, wood, ceramics, fiberglass and most metals with equal ease. When cured, ES6209 provides tough, durable structural joints.

### PRODUCT SPECIFICATIONS

	ES6209 A	ES6209 B	ASTM Method
Color	Amber	Straw	Visual
Viscosity, @77°F, centipoise	40,000 cps	50,000 cps	D2392
Specific Gravity, gms./cc	1.10	0.98	D1475
Mix Ratio, By Wt.	100 : 100 By Weight or Volume		PTM&W
Pot Life, 4 fl. Oz. Mass @ 77°F	60 - 90 minutes		D2471

### PACKAGING WEIGHTS

	Quart	Gallon	Pail
ES6209 Part A	1.75 lb.	7.5 lb.	38 lb.
ES6209 Part B	1.75 lb.	7.5 lb.	38 lb.
Kit	3.5 lb.	15 lb.	76 lb.

# ES6209 Liquid High Strength Epoxy Adhesive, Page 2

## 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 ES6209 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 and poor bonds.

**APPLICATION and CURING:** Apply mixed material to the roughened area of the parts to be bonded. Press surfaces firmly together and let set 2 to 4 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 to 3 hours at 140°F.

## TYPICAL MECHANICAL PROPERTIES

	ES6209 A/B	ASTM Method
Gel Time, @ 77°F	60 - 90 minutes	D2471
Color	Translucent Amber	Visual
Mixed Viscosity, @77°F, centipoise	45,000-55,000 cps	D2393
Cured Hardness, Shore D	85 Shore D	D2240
Cure Time	@ 77°F @ 140°F	18 - 24 hours 2 - 3 hours
Specific Gravity, grams, cc	1.09	D1475
Tensile Strength, psi	8,000 psi	D638
Elongation at Break, %	7 %	D638
Compressive Strength, psi	11,500 psi	D695
Aluminum to Aluminum Tensile Lap Shear	@ 77°F @ 140°F	2,900 psi 700 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.

ES6209 Bulletin / ZW-38 / 102903-C1



## PTM&W Industries, Inc.

10640 S. Painter Avenue      Santa Fe Springs, CA 90670-4092  
562-946-4511      800-421-1518      FAX: 562-941-4773  
Visit Us At: [www.ptm-w.com](http://www.ptm-w.com)      Send Questions To: [info@ptm-w.com](mailto:info@ptm-w.com)