



ES6279, ES6271 & ES6272

High Strength Non-Metal Filled Epoxy Adhesives

DESCRIPTION

ES6279 is a light grayish-tan two part epoxy adhesive that was developed specifically for difficult bonding problems involving similar or dissimilar materials. There are two pigmented versions of ES6279 available: ES6271 is black and ES6272 is white. The three products are identical, except for color. These adhesives provide excellent adhesion to a wide variety of materials such as aluminum, steel, brass, concrete, brick, glass, stone, ceramics, tile and wood. These adhesives have very good handling characteristics. The mix ratio of 1 to 1 by weight or volume allows easy measuring. They have a creamy, smooth viscosity; are very easy to mix; and have good thixotropy for application to contoured or vertical surfaces without sag or runoff. These adhesives cure relatively quickly, developing sufficient “green strength” to allow bonded items to be removed from the holding fixtures and handled within a few hours. The cured material has excellent strength, as well as, good resistance to weak acids, moisture and weather.

TYPICAL APPLICATIONS

ES6279, ES6271 and ES6272 are excellent adhesives for all types of bonding applications. They are very versatile, and can bond a wide variety of materials, so the material becomes a very effective tool in general shop situations. Often, ES6279 will outperform other supposed high performance materials, and give handling advantages as well. It has been successfully used for many years in a variety of general bonding uses, as well as, numerous production applications.

PRODUCT SPECIFICATIONS

	ES6279, 71 & 72 Parts A	ES6279, 71 & 72 Parts B	ASTM Method
Color	ES6279 - Off White 71 - Black, 72 - White	Tan	Visual
Viscosity,	Paste	Paste	D2392
Specific Gravity, gms./cc	1.54	1.49	D1475
Mix Ratio	100 : 100 By Weight or Volume		PTM&W
Pot Life, 4 fl.oz. Mass @ 77°F	20 - 30 minutes		D2471

PACKAGING WEIGHTS

	Quart Kit	Gallon Kit	Pail Kit
ES6279, 71 & 72 Part A	3 lb.	12 lb.	60 lb.
ES6279, 71 & 72 Part B	3 lb.	12 lb.	60 lb.
Kit	6 lb.	24 lb.	120 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 ES6279 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 1 to 2 hours at 75oF. If necessary, place assembly in a jig or other device to prevent movement during initial curing time. Curing time is 6 to 8 hours at 75°F, or 50 to 60 minutes 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.

TYPICAL MECHANICAL PROPERTIES

	ES6279, 71 & 72 A / B	ASTM Method
Mix Ratio, By Weight	100 : 100 By Weight or Volume	PTM&W
Color	ES6279 - Grayish Tan 71 - Black, 72 - White	Visual
Mixed Viscosity, centipoise	Smooth Paste	D2393
Pot Life, 4 fl. Oz. Mass, @77°F	20 - 30 minutes	D2471
Cured Hardness, Shore D	90 Shore D	D2240
Cure Time	6 - 8 hours 45 - 60 minmutes	
Specific Gravity, grams, cc	1.51	D1475
Operating Temperature	-50°F to 150°F	PTM&W
Tensile Strength, cast bar, psi	7,200 psi	D638
Elongation at Break, %	6 %	
Compressive Strength, psi	14,300 psi	D695
Water Absorption	< 2 %	D570
Aluminum to Aluminum Tensile Lap Shear:	3,480 psi 2,000 psi	D1002
	@ 77°F	
	@ 140°F	

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.

ES6279, ES6271 & ES6272 Bulletin / InDesign / 23Aug10-C3



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 Send Questions To: info@ptm-w.com