



ES6307 Epoxy Adhesive

DESCRIPTION

Wyn-Stik ES6307 is a light grayish-tan two part epoxy adhesive that was developed especially for difficult bonding problems involving similar or dissimilar materials. ES6307 provides excellent adhesion to a wide variety of materials such as aluminum, steel, brass, concrete, brick, glass, stone, ceramics, tile and wood. ES6307 has very good handling characteristics. The mix ratio of 1 to 1 by weight or volume allows easy measuring. It has a creamy, smooth viscosity. It is very easy to mix, and has good thixotropy for application to contoured or vertical surfaces without sag or runoff. ES6307 cures 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

The Wyn-Stik ES6307 is an excellent adhesive for all types of bonding applications. It is very versatile, and can bond a wide variety of materials, so it becomes a very effective tool in general shop situations. Often, ES6307 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

	ES6307 Part A	ES6307 Part B	Test Method
Color	Off White	Grayish Tan	Visual
Viscosity	Paste	Paste	ASTM D2393
Specific Gravity	1.58	1.54	ASTM D1475
Mix Ratio	100 : 100 By Weight or Volume		PTM&W
Pot Life, 1 lb. Mass, @ 77°F	20 - 30 minutes		ASTM D2471

PACKAGING WEIGHTS

	Quart Kit	Gallon Kit	Pail Kit
ES6307 Part A	3 lb.	12 lb.	60 lb.
ES6307 Part B	3 lb.	12 lb.	60 lb.
Kit	6 lb.	24 lb.	120 lb.

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DIRECTIONS FOR USE

PREPARATION: All surfaces to be bonded or patched must be free of dirt, oil and grease. Metal surfaces should be roughened by sanding or grit blasting to remove loose contamination and increase the surface area.

MIXING: Measure out equal parts of ES6307 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 75°F. 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 1 hour at 150°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

	ES6307 A/B	Test Method
Mixed Viscosity	Smooth Paste	ASTM D2393
Gel Time, 1 lb. Mass	20 - 30 min	ASTM D2741
Cure Time, @77°F @140°F	6-8 hours 45 minutes	ASTM D2471
Specific Gravity	1.57	ASTM D1475
Hardness, Shore D	90 D	ASTM D2240
Tensile Strength, cast bar	7200 psi	ASTM D638
Compressive Strength, psi	14,300	ASTM D792
Al to Al Tensile Lap Shear Strength, psi	3480 psi	ASTM D1002
Elongation	6 %	ASTM D638

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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