



EV Bond 420 & EV Bond 420GB



Technical Data Sheet



Structural Adhesive Technologies

EV Bond 420 is a high performance two part acrylate adhesive engineered to bond a wide range of plastics, metals, and composite assemblies. It offers outstanding bond strength, is extremely durable, with excellent impact and weathering properties. EV Bond 420 greatly increases the reliability of finished assemblies, its ability to with stand extreme temperature fluctuation, and resistance to a wide range of chemicals and environmental conditions.

EV Bond 420GB allows control of the adhesive gap to a diameter of 0.25mm (0.01”).

Technology/Base:	Modified Acrylic
Type of Product:	Structural Adhesive
Components:	Two Component
Curing:	Room Temperature Cure
Appearance / Color:	Off White or Yellow
Consistency:	Viscous Liquid

Recommended For

Metals

Aluminum
 Steel
 Stainless
 E-Coated Metal

Thermoplastics

Acrylic
 ABS
 Polycarbonate

Thermosets

Fiberglass
 Phenolic
 Gel Coat
 Epoxy
 RIM Urethane
 Polyurethane
 Liquid Molding Resin



Features and Benefits



- No Surface Preparation Required
- Excellent Adhesion Properties
- Excellent Strength to Metals, E-Coat, Thermoplastics, Thermosets, and Engineering Plastics
- High Impact Resistance
- UL94 V0 Flame Retardancy
- Suitable for Easy Manual and Pneumatic Dispensing
- 100% Reactive
- Room Temperature Cure
- 10:1 meter-mix product for ease of application
- Use on as received metal surfaces including aluminum, stainless and plated steels and forms tough, high strength bonds without surface preparation
- Low Odor



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Rheology Viscosity - Resin Viscosity - Activator	100,000 – 200,000 cPs @ 25°C 40,000 - 80,000 cPs @ 25°C	Condition/Method Brookfield RV7 20 rpm Brookfield RV7 20 rpm
Density Mixed Density	1.67 g/cc	
Mix Ratio Volume Mix Ratio Weight Mix Ratio	10:1 14:1	
Uncured Material Characteristics Flash Point Open Time Fixture Time Cure Temperature and Time	>200°F 6 - 9 minutes 15 - 20 minutes Room Temperature, 24 hr	
Cured Mechanical Properties Gap Fill Dimension Hardness Tensile Strength Over Lap Shear Strength Carbon Steel Aluminum Nickel Coated Low - Carbon Steel Plated Dielectric Strength Elongation at Break	70 Shore D 15MPa (2,175 psi) 15MPa (2,175 psi) 20MPa (2,900 psi) 18.5 ± 0.9 kV/mm >3%	ASTM D2240 ASTM D1002, 25°C 50% RH ASTM D1002, 25°C 50% RH ASTM D1002, 25°C 50% RH
Cured Thermal Properties Thermal Service Range	-67°F to 212°F	



General Information

The product is best used at temperatures between 65°F and 80°F. Temperatures below 65°F will slow the cure speed of the material and viscosities will be higher. Temperatures above 80°F will cause the material to cure faster and viscosities will be lower. For consistent dispensing maintain temperature in the above mentioned range. For optimum bond strength and to ensure maximum performance in the finished assembly, mate parts together within the specified work time of the adhesive. Make sure the bond joint has uniform coverage and that a sufficient amount of adhesive is in the bond area. It is important to have the adhesive applied, parts aligned and positioned, within the established work times for the product. To ensure maximum performance in the finished assembly, parts should remain undisturbed until the fixture time is reached.



Handling and Clean-Up

Clean up is best before the adhesive has cured. Cleaners containing NMP (N-methyl pyrrolidone) or Citrus terpene provide the best results. On cured adhesive repeat use may be required.



Typical Packaging

EV Bond 420 is conveniently packaged in 50 ml, 490 ml, pail, and drum kits. Special packaging is available upon request.



Storage and Shelf Life

Product should be stored in a cool dry place out of direct sunlight. The shelf life of EV Bond 420 is 9 months from date of manufacture. Shelf life is based on the products being stored properly at temperatures between 55°F and 75°F. Exposure to temperatures above 75°F will reduce the shelf life. This product should NEVER BE FROZEN.



Safety and Disposal

For safe handling information on this product, consult the Safety Data Sheet (SDS)

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