EV Bond 420

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, it's ability to with stand extreme temperature fluctuation, and resistance to a wide range of chemicals and environmental conditions.

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

Features and Benefits

- No Surface Preparation Required
- Excellent Adhesion Properties
- Excellent Strength to Metals, E-Coat, Thermoplastics, Thermosets, and Engineering Plastics
- High Impact Resistance
- 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

Technical Data

Rheology		**Condition/Method**
Viscosity - Resin	100,000 – 200,000 cPs @ 25°C	Brookfield RV7 20 rpm
Viscosity - Activator	40,000 - 80,000 cPs @ 25°C	Brookfield RV7 20 rpm
Density		
Mixed Density	1.67 g/cc	
Mix Ratio		
Volume Mix Ratio	10:1	
Weight Mix Ratio	14.5:1	
Uncured Material Characteristics		
Flash Point	>200°F	
Open Time	6 - 9 minutes	
Fixture Time	15 - 20 minutes	
Cure Temperature and Time	Room Temperature, 24 hr	
Cured Mechanical Properties		
Gap Fill Dimension		
Hardness	70 Shore D	ASTM D2240
Tensile Strength		
Over Lap Shear Strength		
Carbon Steel	16MPa (2,321 psi)	ASTM D1002, 25°C 50% RH
Aluminum	16MPa (2,321 psi)	ASTM D1002, 25°C 50% RH
Nickle Coated Low - Carbon Steel Plated	22MPa (3,190 psi)	ASTM D1002, 25°C 50% RH
Dielectric Strength	18.5 ± 0.9 kV/mm	
Elongation at Break	>4%	
Cured Thermal Properties		
Thermal Service Range	-67°F to 212°F	

Technical Data Sheet

H.B. Fuller | Engineering Adhesives

Recommended For

METALS
- Aluminum
- Steel
- Stainless
- E-Coated Metal

THERMOSETS
- Fiberglass
- Phenolic
- Gel Coat
- Epoxy
- RIM Urethane
- Polyurethane
- Liquid Molding Resin

THERMOPLASTICS
- Acrylic
- ABS
- Polycarbonate
- Nylon/PA
- PPO
- Vinyl
- PVC
- Styrene
- Peek
- PBT Blends
- PET Blends

General Instructions

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 insure 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 pyrolidone) 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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