



EV Bond 401



Technical Data Sheet

Structural Adhesive Technologies



EV Bond 401 is a high performance two part methacrylate 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 401 greatly increases the reliability of finished assemblies with exceptional flexibility, it's ability to with stand extreme temperature fluctuation and thermal cycling, 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:	Amber, Grey, or Black
Consistency:	Viscous Liquid

Recommended For

Metals	Thermoplastics
Aluminum	Acrylic
Steel	ABS
Stainless	Polycarbonate
E-Coated Metal	Nylon/PA
	PPO
	Vinyl
	PVC
	Styrene
	Peek
	PBT Blends
	PET Blends
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
- Suitable for Easy Manual and Pneumatic Dispensing
- Excellent Thermal Performance
- 100% Reactive
- Room Temperature Cure • 1:1 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



Plug into our EV Adhesive Technology

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Technical Data

Rheology Viscosity - Resin Viscosity – Activator Viscosity – Mixed Thixotropic Index	60,000 cPs @ 25°C/40,000 - 60,000 cPs @ 25°C 5	Condition/Method Brookfield RV7 20 rpm Brookfield RV7 20 rpm Brookfield RV7 20/2 rpm
Density Mixed Density	0.98 g/cc	
Mix Ratio Volume Mix Ratio Weight Mix Ratio	1:1 1:1	
Uncured Material Characteristics Flash Point Open Time Fixture Time Cure Temperature and Time	51°F 8 - 12 minutes 20 - 35 minutes Room Temperature, 24 hr	
Cured Mechanical Properties Gap Fill Dimension Hardness Tensile Strength Over Lap Shear Strength Carbon Steel Aluminum	0.125 inch 75 Shore D 4350 to 5800 psi (30 to 40 MPa) 3200 to 4000 psi (22 to 27 MPa) 3700 psi	ASTM D2240 ASTM D638 ASTM D1002, 25°C 50% RH ASTM D1002, 25°C 50% RH
Cured Thermal Properties Thermal Service Range	-67°F to 250°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 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 pyrrolidone) or Citrus terpene provide the best results. On cured adhesive repeat use may be required.



Typical Packaging

EV Bond 401 is conveniently packaged in 50 ml, 400 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 401 is one year 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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