



FE0004

This is a two component, room temperature curing adhesive with exceptional structural strength and physical properties at 180°F. Typical uses include general purpose bonding where high integrity bonds are needed. FE0004 conforms to MMM-A-134, Type I and meets the strength requirements of Type II. In addition, this product meets the requirements of MIL-A-8623 Type I & II.

Technology / Base	Epoxy
Type of Product	Structural Adhesive
Components	Two Component
Curing	Room Temperature (secondary thermal cure)
Appearance / Color	Tan
Consistency	Liquid

Features and Benefits

- Excellent Adhesion Properties
- Excellent Bonding to Metals, Coatings, Ceramics, Glass and Most Plastics
- Excellent Chemical Resistance
- Suitable for Cartridge and MMD Dispensing Equipment
- Excellent Thermal Performance
- 100% Reactive
- Room Temperature Cure
- 1:1 volume mix product for easy meter or static mix of application

Technical Data

Rheology	Value	Condition/Method
Viscosity - Part A	25,000 cPs	at 25°C
Viscosity - Part B	60,000 cPs	at 25°C
Viscosity - Mixed	62,500 cPs	at 25°C
Uncured Material Characteristics		
Specific Gravity - Mix	1.31	
Volume Mix Ratio	1 to 1	
Weight Mix Ratio	100 to 110	
Pot Life		200 gram
Full Cure @ 23°C	7 to 14 days	
Shelf Life	12 months unopened	
Cured Material Properties		
Hardness	90 Shore D	ASTM D2240
Overlap Shear Strength		
Aluminum, Acid Etched	26.5 MPa (3850 psi)	ASTM D1002, 25°C 50% RH
Aluminum, Acid Etched	24.8 MPa (3600 psi)	ASTM D1002, -50°C 50% RH
T-Peel Strength	44.6 kg/m	
Flexural Strength	40.0 MPa	
Compression Strength	93.1 MPa	
Izod Notch Impact Strength	16.0 J/m	
Glass Transition Temperature, Tg	73°C	
Coefficient of Thermal Expansion, CTE	57.6 ppm/°C	
Thermal Conductivity	0.414 W/mK	
Operating Temperature	-60°C to 120°C	
Cured Electrical Properties		
Dielectric Constant	3.62 at 25°C, 100Hz	ASTM D150



General Instructions

Surfaces must be clean, dry and free from grease, oil, paint, wax and weak oxide films and other surface contaminants. Chemical etching, sanding or grit blasting often gives the best results. Bring both components to room temperature prior to mixing. Just prior to using, blend the two components, Part A and Part B, in the ratio above. Stir the two components together thoroughly, being certain to scrape in all material from the walls and bottom of the mixing container. Materials can be hand stirred. Mechanical mixing is preferable, but should be carried out at slow speeds (<300 rpm), taking as little air as possible into the adhesive batch. Spread a thin layer of the mixed adhesive on one or both of the parts to be bonded. Once the adhesive is applied, no open time is necessary. The surfaces can be assembled immediately. Parts should be assembled while the adhesive is still wet to the touch before it sets. The individual parts, the ambient temperature and the adhesive itself will dictate the open time permitted.

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Specifications and Approvals

SAE AMS 3690A, MMM-A-134, Type I & II, MIL-A-8623 Type I & II

Handling and Clean-Up

See SDS for handling and clean-up information.

Storage

Product should be stored in a cool dry place out of direct sunlight. The shelf life is from date of manufacture. Shelf life is based on the products being stored properly at temperatures between 12°C and 25°C. Exposure to temperatures above 25°C will reduce the shelf life. This product should not be frozen.

Use Note

Safety and Disposal

See SDS for safety and disposal information.