

# American Chemical, Inc.

Phone: 800-2-GLUE-IT (800-245-8348) - 612-374-1767 Fax: 800-8-GLUE-IT (800-845-8348) - 612-377-3590

## TECHNICAL DATA SHEET

PRODUCT # **FE-4066**

### Description:

This is a two component, room temperature curing epoxy adhesive providing a long working life. It meets MIL-A-81236 and amendment 2 type 1 and type 2 requirements, when a 5/4 by volume ratio is used.

### Typical Physical Properties and General Information:

	<u>PART A</u>	<u>PART B</u>	<u>BLEND</u>
Resin System: .....	Epoxy .....	Polyamide .....	Epoxy
Color: .....	Clear .....	Amber .....	Light Yellow
Viscosity (cP (mPa.s)): .....	12,750 .....	12,000 .....	12,000
Weight Per U.S. Gallon (Pounds): .....	9.7 .....	8.1 .....	8.9
Solids (%): .....	100 .....	100 .....	100
Blending Ratio By Volume (A/B): .....			100/80
Blending Ratio By Weight (A/B): .....			100/67
Shelf Life: .....	One Year .....	One Year .....	
Gel Time Sample Weight In Grams: .....			167
Gel Time Temperature (F.) (Degrees F.): .....			77
Gel Time in Minutes (minutes): .....			130
Hardness – Shore D (Shore D): .....			75
Government Specification Number: .....			MIL-A-81236
Government Type: .....			I & II
Government Qualified products: .....			NA

### Application and Equipment suggestions:

Suitable two part metering and mixing equipment is available. Contact you representative for suggested application equipment to suit your specific needs.

**Surface Preparation:** 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 give the best results.

**Proportioning and 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 (about 300 rpm), taking as little air as possible into the adhesive batch.

**Application:** 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 and before it sets. The individual parts, the ambient temperature as well as the adhesive itself will dictate the open time permitted.

### Directions for use:

**Cure Schedule:**

7 – 10 days at 25C  
2 – 3 hours at 70C  
15 – 20 minutes at 150C

**Performance Characteristics:**

Evaluation of physical characteristics and strengths of two blending ratios.

**Blended ratio of A to B**

Tensile Shear Strength:	100 to 100 by wt	100 to 42 by wt
Heat Deflection Temperature:	3,920 psi	4,400 psi
Compression Strength:	160 deg. F	206 deg F
Tensile Strength:	18,000 psi	18,500 psi
Cleavage Strength:	-----	8,800 psi
<b>Storage and Handling:</b>	1,300 psi	1,100 psi

Use good personal hygiene. Avoid eye and skin contact. Wash contaminated clothing before reuse. Store material in a closed container in a cool, dry place.

**Caution:**

Strong sensitizer. Eye and skin irritant. Vapors harmful. Consult the container label and Material Safety Data Sheets for additional cautionary information before using.

The buyer should conduct its own tests of this product before use to determine proper preparation technique and suitability for proposed application. American Chemical, Inc. warrants that the product conforms with American Chemical, Inc. written specifications, and is free from defects. American Chemical, Inc. disclaims all other warranties, expressed or implied, including the warranties of merchantability and fitness for a particular purpose. The buyer's sole remedy for non compliance with this warranty shall be for the replacement of the product or refund of the buyer's purchase price.

5/2004