

Product  
Bulletin

# ALFABOND 61

Carbon filled electrically conductive epoxy. Maximum continuity of conductivity, high adhesion; can be thinned as a coating for FRI and EMI shielding.

## GENERAL DESCRIPTION

ALFABOND 61 is an epoxy adhesive and coating formulation based on conductive carbon. This versatile carbon formulation offers the maximum continuity of conductivity with an electrical resistivity value of less than 40 ohm-cm. ALFABOND 61 is also characterized by a wide operating temperature range from -50 to +170°C.

ALFABOND 65 is recommended for electronic bonding and sealing applications that require both fine electrical and mechanical properties.

ALFABOND 61 cures at room temperature or can be accelerated with mild heat to form a tenacious bond between similar and dissimilar substrates including: aluminum, copper, magnesium, steel, bronze, nickel, kovar, ceramic, glass, phenolic and G-10 epoxy glass boards.

## APPLICATION

1. Clean and remove any dirt and grease from surfaces to be bonded.
2. Mix thoroughly, by weight, 10 parts ALFABOND 61 catalyst to 100 parts ALFABOND 61 carbon resin.
3. Apply and cure overnight at room temperature or cure for 1 hour at 80°C.

**Cure Schedule:** **24 hrs. @ Room Temp**  
**60 minutes @ 60°C**  
**15 minutes @ 100°C**

## STORAGE AND HANDLING

Since settling may occur in storage, remix each container prior to use. Refrigeration storage is recommended to minimize filler settling and to maintain viscosity and electrical conductivity. If refrigeration storage is used, to avoid condensation, allow to stabilize to room temperature before opening and removing material. OSHA Form 20 Material Safety Data Sheet. Bulletins are available on request.

## SPECIFICATIONS

### HANDLING CHARACTERISTICS

Catalyst Number: Catalyst 61  
 Mix Ratio, **Catalyst to Resin, by Weight: 2:20**  
 Workable Potlife, 100 g @ 25°C: 30 minutes  
 Mixed Viscosity @ 25°C cps: paste  
 Recommended Cure: 8 hrs. @ room temp.  
 Color: Black

### PHYSICAL CHARACTERISTICS

Shrinkage Linear, in / in: 0.003  
 Hardness, Shore D: 85  
 Specific Gravity, 25°C / 25°C: 1.50  
 Tensile Strength, psi: 9,500  
 Compressive Strength, psi: 14,000

### THERMAL CHARACTERISTICS

Thermal Conductivity, btu / hr / ft<sup>2</sup> / °F / in: 8.5  
 Thermal Expansion Coefficient,  
 (cm / cm / °C · 10<sup>-5</sup>): 1.5  
 Heat Distortion, °C: 95  
 Operating Temperature Range, °C: -50 to +170

### ELECTRICAL CHARACTERISTICS

Volume Resistivity, ohm · cm: < 40

## AVAILABILITY AND PACKAGING

ALFABOND 61 is available for immediate delivery from stock in:  
 \*Highly flexible transparent two compartment plastic pouch, each section is filled with premeasured component. Pouches are supplied in 2.5, 10 & 20 gram sizes.  
 \*Premeasured, pint, Quart, gallon Kits  
**PRICE ON REQUEST**

**PACKAGING**

ALFABOND 65 is available in:

- 1- Burst Pouches (2.5 grams, 5grams, 10grams)

	<p>Roll pouch to force liquid toward burst seal.</p>
	<p>Squeeze and apply pressure to burst through seal</p>
	<p>Mix thoroughly on edge of desk until well mixed</p>
	<p>Cut corner and dispense.</p>

**PACKAGING**

- 3- Two Chamber Pouches Separated by Plastic Clamp (2.5 grams, 5 grams, 10 grams)

	<p>Hold each end of pouch and pull firmly to remove plastic divider</p>
	<p>Mix thoroughly on table top or any 90° surface until well mixed.</p>
	<p>Cut corner and dispense. Plastic divider can also be used as an applicator</p>

- 2- Jars Kits: ( 0.5Lb, 1.0Lb, 2.0 Lb)

Pre-measured part A and B

