



# Technical Data Sheet

## ALFABOND 60

Flexible Carbon Filled, Electrically Conductive Epoxy Adhesive

### Product Description and Application

ALFABOND 60 is a two component carbon filled, electrically conductive epoxy adhesive. It contains no metal providing it with a minimal corrosion potential. It has a volume resistivity of 40 ohm-cm and exhibits good thermal and electrical conductive properties. ALFABOND 60 cures at room temperature and displays good adhesion to wide variety of substrates and membranes.

ALFABOND 60 is designed for applications requiring electrical conductivity but precise resistive properties are not required such as Electro-static Discharge.

### Directions for Use

Thoroughly read the information pertaining to health and safety contained in this bulletin before use. Observe all precautionary warning and statements on the product label and/or contained in respective Material Safety Data Sheets (MSDS).

To ensure continued performance of the bonded assembly, substrate should be thoroughly cleaned to be free of potential contaminants such as oxide layers, dust, moisture, salt and oils which can compromise the adhesion or cause corrosion in the bonded part.

It is highly recommended that contents of shipping container be thoroughly mixed before use to minimize separation of components during shipping and storage.

To prepare epoxy adhesive for use, accurately weigh resin and hardener into a clean container in recommended ratio. After gathering appropriate amounts of resin and hardener, mix components by hand for 2-3 minutes. Scrape the bottom and sides of mixing container frequently to generate a homogenous mixture. ALFABOND 60 may be diluted by solvent to reduce viscosity.

Apply the adhesive to all surfaces that are to be bonded together. In most applications, only contact pressure is required.

#### Properties of Materials as Supplied

|               | Part A                   | Part B                 |
|---------------|--------------------------|------------------------|
| Chemical Type | Epoxy                    | Hardener               |
| Appearance    | Black, thixotropic paste |                        |
| Density       | 1.50 g/cm <sup>3</sup>   | 1.50 g/cm <sup>3</sup> |

#### Properties of Materials as Mixed

| Property                                          | Value                 |
|---------------------------------------------------|-----------------------|
| <b>Mix Ratio:</b> 1:1 by weight, Part A to Part B |                       |
| <b>Working Life</b>                               | 1 hour                |
| <b>Density</b>                                    | 1.5 g/cm <sup>3</sup> |
| <b>Viscosity:</b> smooth paste                    |                       |
| <b>Shelf Life</b>                                 | 180 days              |

### Cure Schedule

Cure at any of the recommended cure schedules. For optimum performance, follow the initial cure with a post cure of 2-4 hours at the highest expected operational temperature.

| Temperature (°C) | Cure Time  |
|------------------|------------|
| 25               | 24 hours   |
| 65               | 50 minutes |
| 100              | 20 minutes |

#### Properties of Material After Application

| Property                                                 | Unit                          | Value       |
|----------------------------------------------------------|-------------------------------|-------------|
| Flexural Strength                                        | mPa                           | 45          |
|                                                          | psi                           | 6526        |
| Tensile Lap Shear Strength aluminum to aluminum at 25 C° | mPa                           | 10.8        |
|                                                          | psi                           | 1508        |
| Thermal Conductivity                                     | W/m.K                         | 1.2         |
|                                                          | Btu-in/hr-ft <sup>2</sup> -°F | 8.5         |
| Temperature Range of Use                                 | °C                            | -60 to +140 |
| Volume Resistivity                                       | Ohm-cm                        | 40          |
| Shore A Hardness                                         |                               | 64          |

### Storage and Handling

The shelf life of (Product name) Part A and Part B is 6 months at 25°C. For best results, store in original, tightly covered containers. Storage in cool, clean and dry areas is recommended. Shelf life may fluctuate depending on method of application and storage conditions.

### Health and Safety

Consult the Material Safety Data Sheet associated with this product for detailed recommendations on the use of engineering controls, personal protective equipment and first aid procedures.

### Availability and Packaging

ALFABOND 60 is available for immediate delivery from stock in:

- Highly flexible transparent two compartment plastic pouch, each section filled with premeasured component. Pouches are available in 2.5, 10, and 20 gram sizes.
- Premeasured pint, quart or gallon kits.

**PRICE ON REQUEST**



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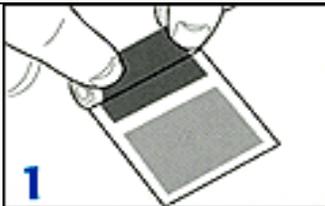
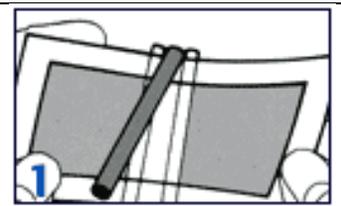
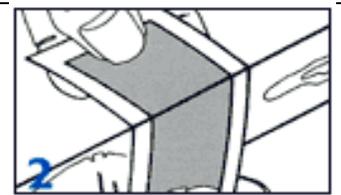
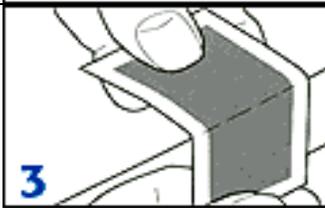
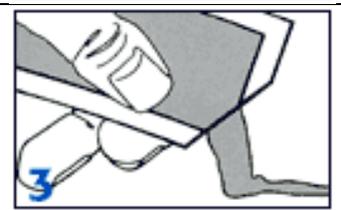
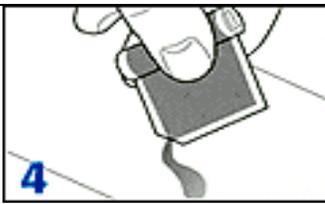
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### Directions for Use in Pouches:

#### Burst Pouches:

#### Two-Chamber Pouches:

|                                                                                    |                                                          |                                                                                     |                                                                                    |
|------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|    | <b>Roll pouch to force liquid toward burst.</b>          |   | <b>Hold each end of pouch and pull firmly to remove plastic divider.</b>           |
|    | <b>Squeeze and apply pressure to burst through seal.</b> |   | <b>Mix thoroughly on table top or any 90° surface until well mixed.</b>            |
|   | <b>Mix thoroughly on edge of desk until well mixed.</b>  |  | <b>Cut corner and dispense. Plastic divider can also be used as an applicator.</b> |
|  | <b>Cut corner and dispense.</b>                          |                                                                                     |                                                                                    |