

## BD5405 FLEX Epoxy Adhesive

### 1. DESCRIPTION:

BD5405 FLEX is a two-part, unfilled rubber modified, room temperature cure, epoxy adhesive designed for high speed bonding of metals, ceramics, and most plastics. It cures to a tough semi-rigid material, and is free flowing in viscosity. It gives good resistance to water, salt spray, inorganic acids and bases, and most organic solvents. It is especially formulated for a 1:1 mix ratio for use in side by side cartridges, or to be used by hand mixing, or use with Meter Mix Equipment.

A handling cure is normally achieved at room temperature within 20 – 30 minutes with a full cure at room temperature within 24 hours. To accelerate the final cure, or to quicken the handling simply elevate the temperature.

### 2. CHARACTERISTICS:

#### **Room Temperature Cure Properties**

Work Time:	3 to 5 minutes (at 75°F/ 24°C)
Fixture Time:	20 to 20 minutes (at 75°F/ 24°C)
Full Cure:	24 hours for full properties
Operating Temp.	-40°F(-40°C ) to 266°F (130°C)
Mixed Density:	9.5 lbs/gal (1.15 g/cc)
Flash Point:	Greater than 200°C (392°F)
Viscosity:	Resin (Part A) 7,000 CPS Hard (Part B) 15,000 CPS
Color:	Resin (Part A) Clear Activator (Part B) Amber Brown Mixed: Light Amber
Mix Ratio:	1 Part A to 1 Part B (1:1)
Hardness:	58 Shore D
Lap Shear Strength:	> 2,300 PSI (AL to AL)
Tensile Strength:	6,500 PSI
Elongation:	5% to 10%
Impact Resistance:	> 150 inch/lb
Water Absorption:	< 1% (24 hours)
Dielectric Constant	4.5 (at 25C, 100Hz)
Dielectric Strength	410 v/mil
Volume Resistivity	8 x 10 <sup>14</sup> ohm-cm
Shelf Life:	12 Months
VOC Content:	0% by weight

### 3. Handling and Storage:

- Bring both components to room temperature prior to mixing. Mix 1 part A to 1 part B thoroughly for 30 to 60 seconds.
- Dispense mixed material over properly positioned devices to be glued together. Do not pour more than 1/2" thick as the product may exotherm too high and may boil. As this is a very quick adhesive, you must work quickly to bond the pieces together.
- Parts may be shipped within 24 hours but parts can be moved in 1 hour.

### 4. ADDITIONAL INFORMATION

NOTE: Information contained herein is based on tests we believe to be reliable and accurate. It is offered in good faith for the benefit of the consumer. The Company shall not be liable for any injury, loss, or damage in the use or handling of its chemical products since conditions and use are beyond our control. In every case, we urge and recommend the user conduct tests to determine to their own satisfaction that the product is of acceptable quality and suitability for their particular purpose under their own operating conditions. Statements concerning possible use of our products are not intended as recommendations to use our products in the infringement of any patent, or for any particular purpose or application. These products are intended for industrial use only.