

Product Description

Infinity Bond EP 120 is a high viscosity industrial grade epoxy adhesive with extended work life. Once mixed, this two component epoxy cures at room temperature to form a tough, amber product bond line with excellent resistance to peel and impact forces. It has impact epoxy additives. When fully cured, this epoxy offers superior thermal shock resistance excellent mechanical and electrical properties, and is resistant to a wide range of solvents and chemicals. Typical application includes bonding pieces in aerospace applications. Infinity Bond EP 120 bonds dissimilar materials including aluminum, steel, and other metals and a variety of plastics. It is especially formulated for a 2:1 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 4 hours with a full cure at room temperature within 48 hours. To accelerate the final cure, or to quicken the handling simply elevate the temperature.

Characteristics

Room Temperature Cure Properties

Work Time:	120 minutes (at 75°F/ 24°C)
Fixture Time:	4 hours (at 75°F/ 24°C)
Full Cure:	48 hours for full properties
Operating Temp.	-60°F(-76°C) to 302°F (150°C)
Mixed Density:	9.5 lbs/gal (1.15 g/cc)
Flash Point:	Greater than 200°C (392°F)
Viscosity:	
Resin (Part A)	50,000 CPS
Hard (Part B)	5,000 CPS
Color:	
Resin (Part A)	Amber
Activator (Part B)	Amber
Mixed:	Amber
Mix Ratio:	2 Part A to 1 Part B (2:1)
Heat Distortion Temp.	195°F(90°C)
Hardness:	82 to 90 Shore D
Flex Strength, Ultimate	11,100 PSI
Comp Strength, Ultimate	17,000 PSI
Comp Strength, Yield	9,600 PSI
Tensile Strength:	6,000 PSI
Elongation:	10 %
Impact Resistance:	> 150 inch/lb
Water Absorption:	<.25% (24 hours)
Dielectric Constant	3.5 (at 25C, 100Hz)
Dielectric Strength	440 v/mil
Volume Resistivity	8 x 10 ¹⁴ ohm-cm
Shelf Life:	12 Months
VOC Content:	0% by weight

Handling and Storage

- A. Bring both components to room temperature prior to mixing. Mix 2-part A to 1 part B by volume or 100 grams part A to 46 grams part B by weight thoroughly for several minutes.
- B. Dispense mixed material onto the substrate, and put together substrates to bond. Parts must be kept immovable for 2 hours.
- C. Parts may be shipped within 48 hours but parts can be moved in 4 hours.

Chemical/Solvent Resistance

Aged under conditions indicated and tested at 25°C

Environment	°C	% Initial Strength 500 Hour	% Initial Strength 1000 Hour
Air	8/7		100
Motor Oil	8/7	125	120
Unleaded Gas	8/7		105
Water/Glycol	8/7	90	90
Salt Fog	%		45
96% RH	3/8		80
Condensing Humidity	4/9		60
Water	2/5		70
Acetone	2/5		100
Isopropanol	2/5		110

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.