

Fast Cure Thixotropic Epoxy Adhesive

Technical Product Bulletin

PRODUCT DESCRIPTION:

STONE-BOND 1 is an exceptional epoxy formulation recommended for lower temperature or wet industrial bonding applications where FAST CURING is required.

STONE-BOND 1 is versatile two-part epoxy system contains no solvents, mixes easily at room temperature, and is suitable for high performance structural bonding applications where the combination of very fast room temperature curing coupled with low shrinkage and excellent mechanical and electrical properties is needed.

STONE-BOND 1 develops strong, tough bonds to metals, plastics, glass and glass fabrics, hardboards and forestry products, ceramics, rubber, masonry materials, and other construction materials.

STONE-BOND 1 is an excellent electrical insulator, and provides superior resistance to vapors and gases, water, galvanic action, petroleum fuels, salt solutions, and many other organic and inorganic compounds.

STONE-BOND 1 develops significant properties 1 hour after mixing. However, an extended cure of 4-6 hours at 25°C is required for fully matured bonds.

Note: STONE-BOND 1 develops a high exotherm. Use immediately after mixing. The exothermic reaction begins within 2 minutes after initiating the mixing step, so have everything ready mixing.

PRODUCT DESCRIPTION:

Appearance	Hazy, light straw
Cure Type	Heat cure or Room Temperature
Benefits	<ul style="list-style-type: none"> Resistant to many organic/inorganics Strong bond strength Great electrical insulator Durable
Mix Ratio by weight	100:93 / Resin:Hardener
Substrates	Metals, ceramics, glass, glass fabrics, wood leather, rigid plastics, marble, stone, rock, concrete, sheetrock, plaster, cement and tile.
Operating Temperature	-60 to 110 °C
Typical Application	Anything requiring the unique properties this adhesive offers

CURE SCHEDULE:

30 minutes	@ 65°C
2 hours	@ 25°C

THERMAL PROPERTIES:

Volume Resistivity	5.00e+11 ohm-cm
Dielectric Constant	4.8
Dielectric Strength	410kV/in
CTE, linear	33.3 µin/in-°F@ RT
Glass Transition Temp, Tg	25.0 °C, 77.0 °F
Minimum Service Temperature, Air	-60°C, -76°F
Maximum Service Temperature, Air	115°C, 302°F

GENERAL INFORMATION:

For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).

HOW TO USE:

- Carefully clean and dry all surfaces to be bonded.
- Apply STONE-BOND 1 completely mixed adhesive to the prepared surfaces, and gently press these surfaces together. Contact pressure is adequate for strong, reliable bonds; however, maintain contact until adhesive is completely cured.
- Some separation of components is common during shipping and storage. For this reason, it is recommended that the contents of the shipping container be thoroughly mixed prior to use.
- Some ingredients in this formulation provided may crystallize when subjected to low temperature storage. A gentle warming cycle of 52°C for 30 minutes prior to mixing components may be necessary. Crystallized epoxy components do not react as well as liquid components and should be re-dissolved prior to use for best results.

UNCURED PROPERTIES:

Viscosity @ 25 °C	3600 cP
Solids Content	100%
Specific Gravity, mixed	1.2 g/cc
Pot Life	3 minutes
Shelf life	1 Year

AVAILABILITY:

This epoxy can be supplied in many different packages

Atom Adhesives

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Phone: (888) 522-6742 - Fax: (877) 522-6742

PHYSICAL PROPERTIES:

Tensil Strength	2700 psi
Izod Impact, Notched	1.90 ft-lb/in
Hardness, Shore D	81

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