BONSTONE®
• MATERIALS CORPORATION •
est. 1962

DATA SHEET

BONSTONE™ 405

MANUFACTURER

Bonstone Materials Corporation

PRODUCT DESCRIPTION

A two-component, exterior grade, clear, medium viscosity epoxy. May be used on damp concrete.

Basic Uses:

- Stone or concrete crack injection, patching and mending
- Bonding stone or hardened concrete to hardened concrete
- Bonding new concrete to existing concrete
- Anchor bolt adhesive
- Bonding stone and concrete to other construction materials
- Bonding stone to stone
- General purpose adhesive for wood, concrete, metal

Limitations: Use on oil, grease, and coating free - substrates.

Applicable Standards: Meets ASTM C-881, Types I, II, IV, V; Class C, Grade 2

TECHNICAL DATA

(see next page)

INSTALLATION

General Instructions: (If using cartridges, additional usage directions are available. See our information sheet labeled " Cartridge use directions".) See separate doweling, laminating, and patching instructions for more specific instructions. CSI format specifications are available.

Surface Preparation & Use: Use gloves, wear eye protection, and avoid skin contact. When grinding cured joints, wear a dust mask. Substrate to be bonded must be completely oil an dust-free. Acceptable use on slightly damp substrate. Mix only the amount of epoxy which can be used in 10 minutes. Avoid stressing joint before complete cure of epoxy. Mask areas which must be kept free of epoxy. Clean uncured epoxy from tools with toluene or xylene. Remove cured epoxy mechanically.

Mixing instructions: All materials should be at or above 55°F. Combine the two ingredients at the following volume ratio: two parts 405 Part A to one part 405 Part B. Mix thoroughly---ingredients must be blended homogeneously for proper cure.

New concrete or other cementitious topping/patching materials may be applied at any point from immediately after Bonstone 405 application, until the mixture begins to "gel" and becomes tacky. Do not apply toppings over Bonstone 405 which is cured to a tack-free or near tack-free state. Reapply Bonstone 405 per the above instructions if necessary, to assure proper bonding under such conditions.

Temperature dependency: Temperature will affect the working properties of the material. Approximately every 15°F results in doubling the speed of cure. Therefore, at 90°F set time is cut in half, at 60°F the set time is doubled. Do not use on a substrate at a temp. below 55°F.

Coverage: Approximately 30 square feet per gallon when applied at 50 mils (1/16th of an inch). 231 cubic inches per gallon

AVAILABILITY

Packaging and storage: 405 is available in quarts, gallons, and 5 gallon pails. Shelf life is approximately one year if kept in unopened cans in a dry area at 75°F. **If BONSTONE 405 Part A is exposed to below room temperature conditions for extended periods of time, it may crystallize, giving it a stiff, grainy consistency. The product must be reconstituted before use by heating it to 150°F degrees. Stir until it becomes a homogeneous liquid.

WARRANTY

This warranty is limited to replacement of defective material and freight charges to destination only. Bonstone Materials Corp. is not responsible for consequential damages.

MAINTENANCE

Designed for application in areas inaccessible to maintenance procedures.

TECHNICAL SERVICE

Specification Service: specifications for various applications, specification writing dept. for unique applications.

TECHNICAL DATA

Mixed Properties	Values	Test Methods
Mix Ratio:	2 parts A to 1 part B by volume	
Pot Life at 75°F:	25 minutes	

Cured Properties

Initial set time at 75°F:	3 hours	
Full cure time at 75°F:	within 24 hours	
Tensile Strength:	9,469 psi	ASTM D-638
Tensile Modulus:	228,000 psi	ASTM D-638
Tensile Elongation at break	5.5 %	ASTM D-638
Compressive Strength:	13,010 psi	ASTM D-695
Compressive Modulus:	327,000 psi	ASTM D-695
Flexural Strength:	17,180 psi	ASTM D-790
Flexural Modulus:	498,000 psi	ASTM D-790
Shore D Hardness:	80	ASTM D-2240
Heat Distortion Temperature:	135° F	ASTM D-648