

TECHNICAL DATA SHEET

FILE UNDER DIVISION 4

1. PRODUCT NAME

BONSTONE[®] FAST-SET™ 41
(A-199/B-441-T)

2. MANUFACTURER

Bonstone Materials Corporation

3. PRODUCT DESCRIPTION:

Bonstone Fast-Set 41 is a 2-component, 100% solids, moisture-tolerant, high modulus, high-strength, structural epoxy adhesive. It conforms to the current ASTM C-881 specification. It also cures at below freezing temperatures.

Where To Use:

- Structural bonding of natural stone, concrete, masonry, metals, wood, etc.
- Anchoring of bolts, dowels, pins, etc.
- Structural repair of natural stone, concrete, masonry, metals, wood, etc.
- Crack injection and repair for natural stone, concrete, wood, etc.
- Seals cracks and around injection ports prior to pressure-injection grouting.
- Pick-proof sealant around windows, doors, lock-ups, etc. inside correctional facilities.

Advantages:

High strength, high modulus structural epoxy adhesive.

- Excellent adhesion to natural stone, concrete, masonry, metals, wood, and most structural materials.

- Fast-setting and strength-producing adhesive.
- Cures quickly even at sub-freezing temperatures.
- Tolerant of moisture before, during, and after cure.
- Convenient easy mix ratio A:B = 1:1 by volume.
- Achieves 90% of full cure within one hour at room temperature.

Applicable Standards:

ASTM C-881

Indiana Limestone Institute specifications for units pre-assembled with thermosetting resins.

4. TECHNICAL DATA

(see second page)

5. INSTALLATION:

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 dry and dust free. 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:

The unmixed epoxy components should be at or above 45°F. Combine the two ingredients at the following volume ratio: one part A-199 to one part B-441-T. Mix thoroughly--- ingredients

must be blended homogeneously for proper cure.

Temperature dependency:

This product is unique, and cures even at below freezing temperatures.

Limitations:

Use on dry substrates. Use on oil, grease, and coating-free substrates. This product will yellow on exterior exposure to sunlight. Due to strong odor this product is recommended for exterior use.

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

6. AVAILABILITY:

Packaging and storage:

FAST SET 41 is available in quarts, gallons, 5 gallon pails and cartridges. Shelf life is approximately one year if kept in unopened cans in a dry area at 75°F.

7. WARRANTY:

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

4. **TECHNICAL DATA** BONSTONE® **FAST-SET™ 41** (A-199/B-441-T)

<i>Mixed Properties</i>	<i>Values</i>	<i>Test Methods</i>
Mix Ratio:	1 part A-199 to 1 part B-441-T by volume	
Mixed viscosity at 75°F:	Creamy paste	
Pot Life at 75°F:	10 minutes	

Cured Properties

Initial set time at 75°F:	15 minutes
90% of full cure time at 75°F:	60 minutes
Full cure time:	within 24 hours

STRENGTHS

		Days Cured
Compressive:	14,543 psi	ASTM D-695 7 days
Tensile:	3,616 psi	ASTM D-638 7 days

MODULUS

Compressive:	235,228 psi	ASTM D-695 7 days
Tensile:	1,271,933 psi	ASTM D-638 7 days

Tensile Elongation:	0.29 %	ASTM D-638 7 days
Barcol Hardness:	29	ASTM D-1706 7 days
Heat Distortion Temperature:	126° F	ASTM D-648 7 days
Water Absorption 24 hours:	0.07%	ASTM D-570 7 days
Coefficient of Thermal Expansion:	2.63×10^{-5} in/in-F°	
Shear Strength of Granite-to-Granite bond:	2,517 psi ; failure mode is stone breakage	