



TECHNICAL DATA SHEET

FILE UNDER DIVISION 4

1. PRODUCT NAME

**BONSTONE®
FAST-SET™ EXTREME**

2. MANUFACTURER

Bonstone Materials Corporation

3. PRODUCT DESCRIPTION:

Bonstone Fast-Set Extreme is a 2-component, 100% solids, non-sag, knife-grade consistency, moisture-tolerant, high modulus, high-strength, structural epoxy adhesive. It cures at or 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.
- Spot Bonding of heavy duty stone tiles
- 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:

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 Part A to one part Part B. 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 Extreme 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 EXTREME

Mixed Properties

Values

Test Methods

| | |
|--------------------------|--|
| Mix Ratio: | 1 part Part A to 1 part Part B by volume |
| Mixed viscosity at 75°F: | Knife Grade |
| Pot Life at 75°F: | 15 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: | 6,947 psi | ASTM D-695 7 days |
| Tensile: | 2,414 psi | ASTM D-638 7 days |
| Flexural: | 5,626 psi | ASTM D-790 7 days |

MODULUS

| | | |
|--------------|-------------|-------------------|
| Compressive: | 161,416 psi | ASTM D-695 7 days |
| Tensile: | 852,634 psi | ASTM D-638 7 days |
| Flexural: | 506,096 psi | ASTM D-790 7 days |

| | | |
|--|-----------|-------------------|
| Tensile Elongation: | 0.2 % | ASTM D-638 7 days |
| Shore D Hardness: | 92 | 7 days |
| Shear Strength of Granite-to-Granite bond: | 3,376 psi | |