



## Expansion Joint Systems

# Delcrete® Elastomeric Concrete with Sand/Fiberglass Aggregate System

**Delcrete® is available in various unit sizes that require different mixing ratios. Please refer to your actual Delcrete® packaging to confirm these installation instructions are applicable to your product.**

## UNIT MAKEUP

Each unit consists of twelve (12) bags of sand (20 pounds each), twelve (12) bags of fiberglass (1.5 pounds each), two (2) five-gallon pails of Part A (clear), and one (1) five-gallon pail of Part B (black). Each sand/fiberglass box weighs approximately 400 lbs. Total unit weight is 550 lbs.

Each unit yields approximately 27.7 mixed gallons and fills a void of approximately 3.7 cubic feet.

## MISCELLANEOUS

- A. Parts A & B may be stored outdoors, but must be protected from freezing weather. The aggregate must be protected from the elements: either stored indoors or, if outdoors, off the ground and covered with a water-proof tarp.

## EQUIPMENT

The D.S. Brown Company recommends the following equipment and materials:

- A. 3/4" heavy duty, slow speed, high torque drill or 3/4" hp mixer with mixing with mixing paddle. D.S. Brown recommends the [Eibenstock Model EHR 18.1 S Mixer](#) or equivalent.
- B. 5 gallon bucket (2)
- C. Plastic measuring beakers (min. capacity 5000 ml)
- D. Notched trowels for finishing and scrapers (margin or brick trowels) for buckets
- E. Personal protective equipment (safety glasses, gloves, safety vests, etc.) See SDS.

- F. Silicone mold release and spray paint (to facilitate cleanup)
- G. Duct tape
- H. Pump-up sprayer or paint brushes for primer
- I. Poly film (in case of rain)
- J. Bung wrench (for opening pails)

## THE BLOCKOUT

- A. Minimum application depth is one inch.
- B. The entire application area must be sandblasted, including one inch outside the repair area. Secondary blasting may be needed if contamination or dampness occurs.
- C. Blow area (including a wide portion of roadway surface area) with high-pressure air that is free of oil and moisture.
- D. It is good practice not to get too far ahead with sandblasting and air blowing or else they may need to be repeated.
- E. Duct tape edge of repair area.

## PRIMING CONCRETE

- A. Primer is best applied with a pump-up spray tank (stainless steel preferred) or plastic spray bottle.
  - Spray nozzles, valves, etc., can be cleaned by immersing in denatured alcohol.
- B. The primer may also be applied by brushing:
  - Use clean brushes at all times.
  - Use smaller "working" can large enough to hold sufficient primer to coat the blockout.
- C. Fresh primer must always be used.
- D. Avoid puddles as this increases drying time.
- E. It is good practice not to return excess primer to the main one-gallon can.
- F. Primer must cure 30 minutes prior to placement of Delcrete®.
- G. Primer must be re-applied after six hours or if a drenching rain occurs.

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### H. USE GREAT CARE IN APPLYING PRIMER. IMPROPER PROCEDURES WILL AFFECT BOND STRENGTH.

### MIXING

- There are 12 batches of approximately 2.31 gallons in each unit.
- Open and combine 1 bag sand and 1 bag fiberglass in an extra bucket.
- Pour 3000 ml Part A and 1500 ml Part B into respective beakers (use level line).
- Add Part A and Part B to 5 gallon bucket. Start mixer at low speed.
- Immediately begin to add sand/fiberglass mixture at a gradual rate (approximately 10 seconds).
- Increase mixer speed to medium. Mix for 2 minutes with a pail mixer.
- Take material to blockout.

### PLACEMENT AND FINISHING

- Delcrete® is initially self-leveling, but rapidly becomes thicker. Be sure to have an area ready for placement prior to mixing.
- Delcrete® must be poured into the blockout in a manner that reduces the potential for delamination. In other words, fill a particular grade on an "as-you-go" basis (including final troweling) rather than emptying the bucket over the entire length of the blockout.
- Start at the low end of the repair area. Delcrete® will flow for several minutes; use trowel to push excess "uphill". After Delcrete® has taken its initial set, use notched trowel to finish to final grade. Avoid "smearing" the excess outside the repair area.
- Never leave a partially filled blockout at lunch breaks, etc.
- Total working time with Delcrete® from adding Parts A & B to initial set is approximately five to ten minutes, depending on temperature.
- It is good practice to use a notched trowel that is long enough to span the repair area.
- If edges are masked with duct tape, remove immediately after final troweling.

### SPECIAL COMMENTS

- On hot, sunny days, keep kits under cover or in the shade.
- Open pails only as needed. To ensure future quality of Delcrete™ parts A & B, tightly close partial containers for reuse.
- Use empty aggregate boxes under measuring and mixing operations to catch drips and spills.

### ACCEPTING TRAFFIC

- Traffic can usually be accepted within one hour after the final pour. Experience will indicate when Delcrete® has cured sufficiently to accept traffic. Two hour maximum.

### CLEANUP

- Before starting, spray buckets with mold release and spray paint. After final mix, do not scrape out excess, but allow the film to cure, and then peel out.
- Paddles should be scraped between mixes to reduce buildup.
- Residue in Part A beaker will set up and can be stripped out.
- Residue in Part B beakers can be drained into an empty Part B can. Final dregs can be wiped away with paper towels.
- Paddles, tools, scrapers, trowels, etc. can be immersed in denatured alcohol or solvent and cleaned later.

### RESTRICTIONS

- Delcrete® must not be installed when air and concrete temperatures are colder than 45°F.
- Delcrete® should not be poured in the rain, however slight.
- Delcrete® should not be used in combination with any fast-setting concrete without checking with The D.S. Brown Company Customer Service for compatibility.