



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. Equipment to be used is a heavy duty pail mixer with a clean 5 gallon bucket.
- 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

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

PLACEMENT AND FINISHING

- A. Delcrete® is initially self-leveling, but rapidly becomes thicker. Be sure to have an area ready for placement prior to mixing.
- B. 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.
- C. 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.
- D. Never leave a partially filled blockout at lunch breaks, etc.
- E. Total working time with Delcrete® from adding Parts A & B to initial set is approximately five to ten minutes, depending on temperature.
- F. It is good practice to use a notched trowel that is long enough to span the repair area.
- G. If edges are masked with duct tape, remove immediately after final troweling.

SPECIAL COMMENTS

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

ACCEPTING TRAFFIC

- A. 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

- A. 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.
- B. Paddles should be scraped between mixes to reduce buildup.
- C. Residue in Part A beaker will set up and can be stripped out.
- D. Residue in Part B beakers can be drained into an empty Part B can. Final dregs can be wiped away with paper towels.
- E. Paddles, tools, scrapers, trowels, etc. can be immersed in denatured alcohol or solvent and cleaned later.

RESTRICTIONS

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