

The deck surfaces shall be flooded with resin, allowing penetration into the concrete and filling of all cracks. The initiated mix of promoted resin shall be limited to 19l (5 gallons) at a time for manual application. A significant increase in viscosity shall be cause for rejection. The treatment shall be applied within 5 minutes after complete mixing. Excess material shall be redistributed by squeegee or brooms within 10 minutes after application.

The Contractor shall take all steps necessary to prevent the resin from flowing into lanes open to traffic. The entire treated area of the bridge deck shall have sand broadcast by mechanical means to effect a uniform coverage of 0.43 kg/m<sup>2</sup> to 0.65 kg/m<sup>2</sup> (0.80 to 1.2 pounds per square yard). The sand shall be uniformly graded aggregate conforming to the quality requirements of 703 and shall conform to the following limits for grading:

| <u>Sieve Size%</u> | <u>Passing Max.</u> |
|--------------------|---------------------|
| 4.75mm (No. 4)     | 100                 |
| 2.36mm (No. 8)     | 90-100              |
| 850 μm (No. 20)    | 5-15                |
| 300 μm (No. 50)    | 0-5                 |

It is the intention of the specification to allow the use of commercially available blast sands applied by a common lawn broadcast type seeder/spreader. Sand shall be placed between 10 to 15 minutes behind the resin spreading front and before any jelling of the resin occurs. If the surface contains large deep cracks, the low-viscosity liquid could run completely through the concrete slab. In these areas, a second coat will be required after the first coat has started to cure.

Before the monomer hardens, imperfections or spalls with standing liquid shall be filled with commercial quality concrete or sandblast sand, and finished to a uniform surface. The sand shall have a maximum moisture content of 0.5 of the percent of absorption when tested in accordance to a California Test 226.

Traffic and equipment shall not be permitted on the tested deck until it is tack free and a minimum of 6 hours have elapsed since treatment and the sand cover adheres sufficiently to resist brushing by hand. The treatment shall be protected from moisture for not less than 4 hours after placement.

**846.06 METHOD OF MEASUREMENT.** The area under this item will be the number of square meter (square yards) of concrete bridge deck which are prepared, treated with high molecular weight methacrylate resin and are complete in place and accepted.

The accepted quantities of deck treatment will be paid for at the contract unit price per square meter (square yard), which price and payment shall be full compensation for furnishing all labor, materials including catalysts, tools, equipment and incidentals, and for performing all the work involved in preparing and treating the concrete surfaces

according to specifications.

**846.07 BASIS OF PAYMENT.** Payment for the above completed and accepted quantities will be made at the contract bid price for:

| <b>Item</b> | <b>Units</b>               | <b>Description</b>                             |
|-------------|----------------------------|--|
| 846         | Square meter (square yard) | Treating concrete bridge decks with HMWM resin |