



Delpatch™ Elastomeric Concrete Spall Repair

SECTION I – Description

A. This item shall consist of furnishing and installing suitable material to repair damaged concrete pavement. Spall repair shall consist of sawing concrete behind the spalled area, removing concrete pavement to expose sound pavement throughout the repair area, preparing and installing repair material and completion of the sawn joint.

SECTION II – Identification

A. Before starting spall repair work on the concrete pavement, the contractor and the owner shall inspect the concrete to identify spalls and mark any areas that shall be prepared. Identification of spalls shall be at the sole discretion of the owner.

SECTION III – Materials

A. **Elastomeric Concrete.** The elastomeric concrete shall contain a two-component polyurethane product mix with sand and 1/8" chopped strand fiberglass. The elastomeric concrete shall contain no greater than 21 pounds of sand and fiberglass for every gallon of polymer.

The elastomeric concrete will consist of a fluid base or binder with suitable reinforcing agents to provide a product that mixes in five minutes or less, flows readily, strongly adheres to concrete, requires no external application of heat for curing and cures within a maximum of two hours after mixing. This material shall be Delpatch™ as manufactured by The D.S. Brown Company, 419-257-3561, fax 419-257-2200 or pre-approved equal.

B. **Properties.** The material shall meet the following properties:

| Property | Requirements | Test Method |
|---|----------------|-------------|
| Tensile | | |
| Strength | 600 psi | |
| Elongation | 25 | |
| Hardness, Durometer D | 50 | ASTM D2240 |
| Compressive | | |
| Stress psi 5% Deflection | 800min/1400max | ASTM D695 |
| Resilience, % 5% Deflection | 95 min | |
| Impact | | |
| Ball Drop @ -20°F (No cracking) | >10 ft | |
| Adhesion to Concrete (psi) | | |
| Dry Bond | 400 min | |
| Wet Bond | 250 min | |
| Fluid Immersion | | |
| % Wt, change after 70 hrs in room temp. Jet fuel | 8% max | ASTM D471 |

SECTION IV – Construction Methods

A. **Weather Limitations.** Spall repair shall be performed only when the ambient air temperature is 45°F (7°C) and rising. The temperature of the concrete to be repaired shall be 45°F (7°C) or above.

B. **Preparation and Application of Elastomeric Concrete.**

- Area Preparation** - Saw cut area to be repaired to the dimensions indicated in the plans or as directed by the owner. Carefully sandblast all areas, which will be in contact with the elastomeric concrete material. Repair area must be clean and dry before placing elastomeric concrete.

Spall Repair | Delpatch™ Elastomeric Concrete

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2. **Priming** - Use a pump sprayer or brush to apply the primer. The primer shall be supplied as part of the elastomeric concrete system, product # 105 or pre-approved equal. Apply primer for concrete surfaces to all areas that come in contact with the elastomeric concrete. Allow primer to dry 30 minutes before pouring the spall repair material.
3. **Mixing** - Mix 3,000 ml of Part A and 1,500 ml of Part B for approximately 10 seconds. Add one pre-weighed and portioned bag of sand and fiberglass (provided by the manufacturer) and continue to mix for approximately 1 minute. When properly mixed, the elastomeric concrete is an even gray color.
4. **Pouring** - The elastomeric concrete must be poured into the repair area in a manner that reduces the potential for delaminating. Fill entire area to grade as you go rather than emptying the mix over the entire

length of the repair area. Start at the low end of the repair area. The elastomeric concrete is self-leveling. As it cures, use a trowel to achieve a grooved or textured finish. For repairs along existing joints, the joints should be maintained by the use of forming materials or saw cutting method. Masking and forming materials should be removed immediately after troweling. Please review the manufacturer's installation instructions prior to installing the repair material.

5. **Accepting Traffic** - Allow the material to cure two hours before opening to traffic.

SECTION V – Manufacturer's Representative

- A. A representative or agent of the manufacturer shall be present during the initial uses of this product to satisfy himself/herself and the owner that it is being properly applied.