

SPECIFICATION

EMCRETE by EMSEAL High-Impact Elastomeric Concrete Material

PART 1 – GENERAL

1.01 Work Included

- A. The work shall consist of furnishing and installing flexible, durable, high-impact elastomeric concrete material in accordance with the details shown on the plans and the requirements of the specification. Elastomeric concrete shall be comprised of a two-component polyurethane resin mixed with silica-free sand and silica-free chopped fiberglass aggregates. This elastomeric concrete shall consist of a high resin to low aggregate ratio not to exceed 1:2 by weight or volume.
- B. Related Work
 - Division 3 - Concrete
 - Division 7 - Thermal & Moisture Protection
 - Division 7 - Sealants, caulking and waterproofing

1.02 Submittals

- A. General – Submit the following according to Division 1 Specification Section.
- B. Standard Submittal Package – Submit typical drawings(s) indicating pertinent dimensions, general construction, and product information.
- C. Sample of material is required at time of submittal.
- D. Product must be certified by independent laboratory test report to prove that the ratio of resin to aggregate by weight does not exceed 1:2.
- E. Product must be certified by independent laboratory test report to prove that the adhesion pull of strength for concrete (abraded, wiped or primed) exceeds 425 psi, for steel (abraded, wiped and primed) exceeds 247 psi, and that for galvanized steel (wiped and primed) exceeds 261 psi.
- F. Product must be certified by independent laboratory test report to prove that a 1-pound steel ball dropped onto 3/8" thick (8mm) x 2.75" diameter (70mm) dish from 17 feet provides the following results: No cracks at room temperature (69°F; 20°C), and no cracks at -4°F; and -20°C.
- G. Product must be certified by independent laboratory test report to prove that the product has been tested according to ASTM D 2240 at 77°F (25° C) with the results of a 98 Shore A and a 57 Shore D.

1.03 Product Delivery, Storage and Handling

- A. Deliver products to site in Manufacturer's original, intact, pre-measured and labeled containers which hold the liquids, silica-free sand and silica-free fiber. Handle and protect as necessary to prevent damage or deterioration during shipment, handling and storage.

1.04 Basis of Design

- A. All work shall be designed to meet the specified performance criteria of the project as manufactured by: (USA & International) EMSEAL JOINT SYSTEMS, LTD 25 Bridle Lane, Westborough, MA 01581-2603, Toll Free: 800-526-8365. (Canada) EMSEAL, LLC 120 Carrier Drive, Toronto, Ontario, Canada M9W 5R1 Toll Free: 800-526-8365. www.emseal.com
- B. Alternate manufacturers must demonstrate that their products meet or exceed the design criteria and must submit certified performance-based test reports performed by recognized independent laboratories as called for in section 1.02 Submittals. Submittal of alternates must be made three weeks prior to bid opening to allow proper evaluation time.

1.05 Quality Assurance

- A. The General Contractor will conduct a pre-construction meeting with all trades responsible for areas where this product is being used such as in the treatment of work at and around expansion joints, or as a repair or patching material. The General Contractor is responsible to coordinate and schedule all trades and ensure that all subcontractors understand their responsibilities in relation to the use of this material.
- B. Warranty – Manufacturer's standard warranty shall apply.

PART 2 – PRODUCT

2.01 General

- C. Provide two-component polyurethane resin mixed with silica-free sand and silica-free chopped fiberglass aggregates. Typical locations include, but are not limited to the following: To be used as a component of an expansion joint assembly either to fill blockouts on each side of an expansion joint gap, to repair a damaged expansion joint gap edge, as an impact-absorbing backfill nosing, or as a fast-curing patching material for potholes, or spalls on concrete roadways, parking surfaces, bridges, runways, etc.
- A. Provide EMBRETE as manufactured by EMSEAL JOINT SYSTEMS, LTD. and as indicated on drawings.
- B. Elastomeric concrete material shall be comprised of a two-component polyurethane resin mixed with silica-free sand and chopped fiberglass aggregates. The silica-free sand imparts compressive strength. The silica-free

fiber provides cross-linked reinforcement while, in combination with the silica-free sand, adds body to the polyurethane resin.

- C. Aggregate ratio of resin to aggregate by weight must not exceed 1:2.

2.02 Fabrication

- A. EMCRETE by EMSEAL must be supplied in pre-measured containers which hold the liquids (Parts A & B) and silica-free aggregate.

PART 3 – EXECUTION

3.01 Installation

- A. Preparation of the Work Area

1. Substrates must be thoroughly dry and the temperature must be at least 45 ° F (8 ° C) and rising to install EMCRETE. The bonding surface should be in sound and good condition before prepping. The entire bonding surface is to be wire brushed and fully cleaned leaving no contaminants such as dirt, dust, oils, or other residue on any surface. The area where the EMCRETE will be poured shall be fully prepped and formed and the substrate shall be primed with EMPRIME primer that is included with units of EMCRETE and allowed to dry for 30 minutes. Refer to Manufacturer's Installation Guide for detailed step-by-step instructions.

END OF SECTION