

Section 07102
ISO-FLEX® EXPANSION JOINT SEAL SYSTEM

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including General and Supplementary Conditions, apply to this section.

Note to Specifier: Include only those items which are applicable to a specific project.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Concrete curing, finishing, jointing and repair requirements affect this section.

1.03 QUALITY ASSURANCE

- A. Work under this section shall be performed by an applicator approved by the manufacturer, both having a minimum of five continuous years of experience in this type of work. The manufacturer shall evidence in writing that the applicator designated to perform the work is qualified to install the specified systems.
- B. Prequalification of bidders: Submit proposed subcontractors to the engineer for approval prior to bid. Qualification criteria shall include compliance with 1.03-A above. Specifier retains absolutely the right to reject any applicator or manufacturer submitted.
- C. A site inspection shall be made by the approved applicator prior to commencing installation of the system for purposes of reviewing related conditions affecting performance requirements of this specification.
- D. All products described in this section must be used with adequate ventilation and personal protection. Refer to the Material Safety Data Sheet which accompanies each product shipment for detailed health and safety information prior to use.

1.04 SUBMITTALS

- A. A detailed statement describing the expansion joint seal systems to be installed shall be submitted for approval prior to installation. Literature, details, samples, shop drawings, warranties, etc., shall be included in the submittal as required.
- B. Manufacturer's written acceptance and approval of the intended system applicator is required.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. The expansion joint seal system shall be a complete system of compatible materials designed by the manufacturer to produce traffic-bearing expansion joint seals as detailed on the drawings. Systems approved for use under this section shall consist of the following used singularly or in combination as appropriate:
 - 1. The "Iso-Flex Factory Molded Textured Expansion Joint Sealing System" by Master Builders, Inc., 23700 Chagrin Blvd., Cleveland, Ohio 44122 (216-831-5500).
- B. Approved factory molded urethane expansion joint sealing systems shall meet the following requirements:
 - 1. The textured urethane expansion joint seal shall be factory molded off site in the manufacturer's facility. No exceptions to this requirement will be considered.
 - 2. The seal shall have low modulus, high elongation properties (Durometer, Shore A: 30 ± 5).
 - 3. Seal edges shall be abraded by power wire brushing in the factory prior to shipping.
 - 4. The system shall include the use of polymeric nosings consisting of a hard, polymeric compound designed to adhere the seal in place and protect against concrete edge spalling. The compound shall be a two-component polymer designed for rapid cure with higher durometer than the factory molded seal.
- C. Nosing, traffic plates, blockout fillers, bond breakers, primers and miscellaneous materials required for installation shall be as recommended by the system manufacturer.

PART 3 - EXECUTION

3.01 GENERAL

- A. All work shall be installed in strict accordance with system manufacturer's recommendations employing trained installers utilizing proper tools and equipment and working under the direct supervision of a technically competent and experienced supervisor.
- B. All surfaces related to work under this section shall be inspected by the approved applicator prior to commencing work. Any conditions discovered which render the substrate unsuitable shall be reported and satisfactorily corrected prior to installation of the expansion joint seal system.
- C. Environmental Conditions
 - 1. System application shall be at temperatures ranging from 40°F to 110°F as recommended by the system manufacturer.
 - 2. The deck surface shall be dry at time of application according to ASTM D4263, Standard Test Method for Indicating Moisture in Concrete.
 - 3. Provide adequate ventilation in accordance with system manufacturer's recommendations during installation of the expansion joint sealing system.

3.02 PREPARATION

- A. It shall be the responsibility of the concrete subcontractor to provide expansion joint blockouts with clean, sound substrates free of voids and honeycomb and in accordance the dimensions detailed in the drawings.
- B. Work shall not proceed with the expansion joint seal installation until unsatisfactory conditions have been corrected in a manner acceptable to the applicator.
- C. The blockouts shall be thoroughly cleaned as recommended by the seal manufacturer prior to installation of the seal system.
- D. Work shall not proceed under adverse weather conditions or when temperatures are below or above manufacturer's recommended limitations for installation.

3.03 INSTALLING THE FACTORY MOLDED URETHANE SEAL

- A. Bed and affix the traffic plate on one side and allow it to move on the other by placing a bond breaker over the bedding on the free side.
- B. Place and adhere the factory molded seal in the joint in accordance with procedures recommended by the manufacturer, making sure it is flush with the riding surface.
- C. The expansion joint seal system shall be protected from traffic until completely cured.

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