SPECIFICATION

Sections 07 90 00 / 07 95 00

RoofJoint by EMSEAL

Watertight Roof Expansion Joint System

*\*\*\*NOTE to Specifier:*

1. *It is critical in ensuring the success of the project that this expansion joint be specified in the same section as the roof waterproofing system and is installed by the contractor responsible for installing the roof waterproofing system.*
2. *Specifier must choose between the following roof closure types:*
   1. *SEISMIC COLORSEAL Solid-Wall Closure*
   2. *SEISMIC COLORSEAL Cavity-Wall Closure*
3. *Specifier must include Seismic Colorseal to complete roof closure regardless of type selected above.*
4. *Specifier must choose between the following RoofJoint material composition:*
   1. ***Nitrile PVC*** *for direct welding to PVC-based roof membranes and for adhesion into thermoset-rubber roof membranes (EPDM, Neoprene, etc).*
   2. ***TPV (ThermoPlastic Vulacanizate)*** *for welding to TPO (ThermoPlastic Olefin)-based roof membranes. \*\*\**

# PART 1 – GENERAL

* 1. Work Included

1. The work shall consist of furnishing and installing waterproof expansion joints in accordance with the details shown on the plans and the requirements of the specifications. Expansion joints shall be a dual-seal, double-flanged, extruded thermoplastic rubber for sealing expansion joints in roofs through positive integration with the roofing membrane and a purpose-designed system for transitioning between the joint in the roof and joints in walls.
2. Related Work

* Division 3 - Cast-in-Place Concrete
* Division 7 - Thermal & Moisture Protection
* Division 7 - Sealants, Caulking and Waterproofing
  1. Submittals

1. General – Submit the following according to Division 1 Specification Section.
2. Standard Submittal Package – Submit typical expansion joint drawing(s) indicating pertinent dimensions, general construction, expansion joint opening dimensions and product information.
3. Sample of material to be used in work is required at time of submittal.
   1. Product Delivery, Storage and Handling
4. Deliver products to site in Manufacturer’s original, intact, labeled containers. Handle and protect as necessary to prevent damage or deterioration during shipment, handling and storage. Store in accordance with manufacturer’s installation instructions.
   1. Basis of Design
5. All joints 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
6. Alternate manufacturers must demonstrate that their products meet or exceed the design criteria. Submittal of alternates must be made three weeks prior to bid opening to allow proper evaluation time.
   1. Quality Assurance
7. The General Contractor will conduct a pre-construction meeting with all parties and trades involved in the treatment of work at and around expansion joints including, but not limited to, concrete, mechanical, electrical, HVAC, landscaping, masonry, curtain wall, waterproofing, fire-stopping, caulking, flooring and other finish trade subcontractors. All superintendents and foremen with responsibility for oversight and setting of the joint gap must attend this meeting. The General Contractor is responsible to coordinate and schedule all trades and ensure that all subcontractors understand their responsibilities in relation to expansion joints and that their work cannot impede anticipated structural movement at the expansion joints, or compromise the achievement of watertighness or life safety at expansion joints in any way.
8. Warranty – Manufacturer’s standard warranty shall apply.

## PART 2 – PRODUCT

* 1. General

1. Provide watertight, expansion joint by EMSEAL Joint Systems for expansion joints in roof decks and isolation joints in non-traffic, high-movement and seismic structural joint in roof decks. Typical locations include, but are not limited to the following: applications for joints over occupied space, joints across roof lines, and solid slab construction anywhere waterproofed construction is specified. System shall perform waterproofing and movement-accommodation functions as the result of a single installation and without the addition of gutters, vapor barriers, bladders, or other devices suspended beneath or within the system in any way.
2. Provide RoofJoint as manufactured by EMSEAL JOINT SYSTEMS LTD and as indicated on drawings for horizontal expansion joint locations.
3. System shall be comprised of: 1.) a heat weldable, Nitrile PVC or TPV thermoplastic extrusion with dual-level flange and, 2.) manufacturer supplied termination bar and anchors and, 3.) factory welded downturn transition in the RoofJoint gland that is sealed at a ship lapped 45-degree angle to mate with an interlocking factory-fabricated RoofJoint/SEISMIC COLORSEAL transition piece.
4. Final selection of the extrusion size to be coordinated between manufacturer, designer, and contractor(s) in consideration of expected movements as a product of structural design and expected temperature variations, taking into account as-built joint-gap sizes and temperatures at expected installation time. Width of joint-gaps at time of casting or cutting to be adjusted, if necessary, from baseline temperature used and specified by designer in determining system suitability.
5. Manufacturer’s Checklist must be completed by expansion joint subcontractor and returned to manufacturer at time of ordering material.

* 1. Fabrication

1. Include details and manufacturing drawings indicating profiles of each type of expansion joint cover assembly, splice joints between sections, joinery with other types, special end conditions, fasteners, and relationship to adjoining work and finishes with specific reference to tie-in with deck waterproofing system through integration with expansion joint system dual-level flange.
2. Directional changes and terminations into vertical plane surfaces (walls, parapets, ends of decks, etc) as well as to transition the material through curbs or other in-slab plane changes to be provided by factory-manufactured assemblies that preserve continuity of seal. Transitions between RoofJoint and any other of Manufacturer’s joint systems in the vertical plane to be executed according to Manufacturer’s details and to be warranted as watertight.

## PART 3 – EXECUTION

* 1. Installation

1. Preparation of the Work Area
2. The contractor shall provide properly formed and prepared expansion joint openings constructed to the exact dimensions and elevations shown on manufacturer’s standard system drawings or as shown on the contract drawings. Deviations from these dimensions will not be allowed without the written consent of the engineer of record.

1. The contractor shall clean the joint opening of all contaminants immediately prior to installation of expansion joint system. Repair spalled, irregular or unsound joint surfaces using accepted industry practices for repair of the substrates in question. Remove protruding roughness to ensure joint sides are smooth. Refer to Manufacturers Installation Guide for detailed step-by-step instructions.
2. System to be installed by qualified sub-contractors only according to detailed published installation procedures and/or in accordance with job-specific installation instructions of manufacturer’s field technician. The applicator must be the same contractor as will be installing the deck waterproofing system. Bids must include for presence of paid-for manufacturer’s field technician to be present during initial preparation, inspection, and material installation.
   1. Clean and Protect
3. Protect the system and its components during construction. Subsequent damage to the expansion joint system will be repaired at the general contractor’s expense. After work is complete, clean exposed surfaces with a suitable cleaner that will not harm or attack the finish.

END OF SECTION