SPECIFICATION
Section 07900/079500
Previous 05800

Wabo®CompressionSeal
"WA" Preformed Elastic Joint Seal

PART 1 - GENERAL

1.01 Work Included

A. The work shall consist of furnishing and installing expansion joints in accordance with the details shown on the plans and the requirements of the specifications. The joints are proprietary designs utilizing preformed metal components, gaskets and fastening strips.

B. Related Work
- Cast-in-place concrete
- Miscellaneous and ornamental metals
- Flashing and sheet metal
- Sealants and caulking

1.02 Submittals

A. Template Drawings - Submit typical expansion joint cross-section(s) indicating pertinent dimensioning of blockout recess and adjacent construction.

1.03 Product Delivery, Storage and Handling

A. Deliver products in each manufacturer's original, intact, labeled containers and store under cover in a dry location until installed. Store off the ground, protect from weather and construction activities.

1.04 Acceptable Manufacturer

A. All joints shall be as designed and manufactured by Watson Bowman Acme, 95 Pineview Drive, Amherst, New York 14228.

B. Alternate manufacturers and their products will be considered, provided they meet the design concept and are produced of materials that are equal to or superior to those called for in the base product specification.

C. Any proposed alternate systems must be submitted and receive approval 21 days prior to the bid. All post bid submittals will not be considered. This submission shall be in accordance with MATERIALS AND SUBSTITUTIONS.
- Any manufacturer wishing to submit for prior approval must provide the following:

1. A working 6” sample of the proposed system with a letter describing how system is considered superior to the specified system.

2. A project proposal drawing that illustrates the recommended alternate system installed in the horizontal or vertical construction that is specific to the project. Typical catalog cut sections will not be considered.

3. Verifiable list of prior installations showing prior and successful experience with the proposed systems.

4. Any substitution products not adhering to all specification requirements within, will not be considered.

1.05 Quality Assurance

A. Manufacturer: Shall be ISO-9001:2015 certified and shall provide written confirmation that a formal Quality Management System and Quality Processes have been adopted in the areas of, (but not limited to) engineering, manufacturing, quality control and customer service for all processes, products and their components. Alternate manufacturers will be considered provided they submit written proof that they are ISO 9001:2015 certified prior to the project bid date. Manufacturers in the process of obtaining certification will not be considered.

B. Manufacturer: Shall have a minimum ten (10) years experience specializing in the design and manufacture of expansion control systems.

C. Products: Expansion control systems shall be installed with manufacturer’s blockout repair and infill materials.

D. Application: The specified expansion control system(s) shall be installed by the manufacturer’s factory trained installer.

PART 2 - PRODUCT

2.01 General

A. Provide multi-cellular Elastomeric Seal Profile that is capable of accommodating movement and variation in joint widths through compression and flexure of its internal web structure. Design web structure with truss like features that exhibit the ability to support pedestrian traffic where applicable and exerts a continuous and uniform pressure against joint side walls effectively providing a watertight seal and application. Design top of seal with suitable surface that is non-slip and complies with ADA guidelines when installed. Accommodate multiple sizes of joint openings by providing a variety of sizes and cross sections.

For horizontal and vertical expansion joints furnish Wabo® WA Neoprene Compression Seal, as manufactured by Watson Bowman Acme and as indicated on drawings.

2.02 Materials

A. Seals - The seals shall be preformed and manufactured from vulcanized elastomeric compound using polymerized chloroprene (neoprene) as the base polymer. The seals shall meet the requirements of the properties listed in the table below exclusive of recovery and pressure sensitive tests unless specified otherwise.

PHYSICAL PROPERTIES OF POLYCHLOROPRENE (NEOPRENE) SEAL ELEMENT

Physical Properties	ASTM Test Method	Requirements
Tensile strength, min.	D-412	2000 psi
Elongation @ break min.	D-412	250%
Hardness, Type A Durometer	D-2240 (Modified)	(55 +/-5)
Compression set. 70 hr. @ 212°F max.	D-395, Method B (Modified)	40%
Oven aging, 70 hr. @ 212°F	D-573	
Tensile strength, loss, max.		20%
Elongation, loss, max.		20%
Hardness, Type A Durometer (points change)		0 to +10
Oil Swell, ASTM oil 3, 70 hr. @ 212°F weight, change, max.		45%
Ozone resistance 20% strain, 300 pphm, in air @ 104°F (wiped w/toluene to Remove contamination)	D-1149	No Cracks
Low temperature recovery, 72 hr. @ 14°F 50% deflection, min.	D-2628-81	88%
Low temperature recovery, 22 hr. @ -20%°F 50% deflection, min.	D-2628-81	83%
High temperature recovery, 70 hr. 212°F 50% deflection, min.	D-2628-81	85%

B. Lubricant Adhesive - Prima-Lub Adhesive (as recommended by the joint manufacturer) shall be a one part moisture curing polyurethane and aromatic hydrocarbon solvent mixture which complies with ASTM D-4070.

C. Metal Retainers (optional) - Provide profile or shape of suitable size and design for application indicated on contract drawings. Incorporate factory welded stop bar for all horizontal conditions and as recommended by manufacturer. Metal alloy and method of anchorage shall be governed by architect.

D. Fire Barrier Assembly - Designed for indicated or required dynamic structural movement without material degradation or fatigue. Tested in maximum joint width conditions with a field splice as a component of expansion joint cover in accordance with ASTM E-119 at a full rated period by a nationally recognized testing and inspecting organization. Supply Watson Bowman Acme FlameGuard or ThermoShield Fire Barrier as governed by joint opening and fire rating.

2.03 Fabrication

A. Seal profiles shall be shipped in the longest practical continuous length in manufacturer's standard shipping carton or on wooden pallets shrink wrapped. Seals shall be cut to length on jobsite where required. Miter cut in the field to conform to directional changes unless otherwise contracted with expansion joint manufacturer.

B. Lubricant Adhesive will be shipped in manufacturer's labeled metal gallon containers.

C. Metal Retainers - Ship fabricated shapes and profiles in manufacturer's random or pre-cut lengths with factory drilled anchor holes or concrete anchor studs where applicable. Include Seal Stop Bar for all horizontal conditions. Height of Stop Bar shall be governed by architect's requirements for anticipated movement and seal recess. Retainers shall be cut to length on jobsite where required. Miter cut in the field to conform to directional changes unless otherwise contracted with expansion joint manufacturer. Stack and wire-band retainers for shipment.

D. Fire Barriers - Ship manufacturer's standard assembly including fire caulks, sealants (if applicable) and hardware for the required hourly rating. Assemblies shall be miter cut in the field to accommodate changes in direction.

2.04 Finishes

A. Seals - Supply in color: Black.

B. Metal Retainers - Supply in standard mill finish.

PART 3 - EXECUTION

3.01 Installation

A. Where indicated and noted on the contract drawings, install the seals in a neat, workmanlike manner. Utilize manufacturer's optional installation tool where applicable. All surfaces to receive elastomeric compression seal shall be free from dirt, water, frost and any other loose foreign debris which may be detrimental to effective joint sealing.

B. The neoprene seal shall be supplied in the longest continuous length possible. Factory splices will be allowed. Aron Alpha adhesive shall be used to field splice and/or miter the seal to accomplish directional changes. Purchase adhesives from seal manufacturer.

C. Install seals utilizing manufacturer's Prima-Lub Adhesive.

D. Protect all expansion joint component parts from damage during installation of adjacent materials and thereafter until completion of structure. Protect horizontal seals from construction traffic.

E. Expansion joint systems shall be installed in strict accordance with the manufacturer's typical details and instructions along with the advice of their qualified representative.

F. Expansion joint systems shall be set to the proper width for the ambient temperature at the time of installation. This information is indicated in the contract plans.

3.02 Clean and Inspect

A. Protect system and its components during construction. After work is complete in adjacent areas, clean exposed surfaces and remove excess adhesive with a suitable cleaner that will not harm or attack the elastomeric seal.