

# **SPECIFICATION**

### Wabo®Transflex Joint System

Molded Rubber Segmental Expansion Joint System for Bridge & Highway Applications

#### A. General

The work shall consist of fabricating, furnishing and installing a bridge deck joint sealing system in accordance with the details shown on the plans and the requirements of the specifications.

Manufacturer shall a minimum ten (10) years experience specializing in the design and manufacture of expansion control systems

# B. Quality Control

Manufacturer shall be ISO-9001:2008, RC14001:2008 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 9001:2008, RC14001:2008 certified prior to the project bid date.

#### C. Product

Provide a watertight joint sealing system that is capable of accommodating the structures movement. The joint sealing system shall consist of elastomeric molded neoprene panels that are reinforced with structural steel angles and imbedded wear plates. The system is cast into the structure by cast in place anchors. The elastomeric panels shall be designed to withstand traffic loads. Provide panel size that satisfies project requirements including movement and watertightness. Install all components utilizing manufacturer's recommended sealants for complete installation.

### D. Component and Materials

The Contractor shall furnish a manufacturer's certification that the materials proposed have been pre-tested and will meet the requirements as set forth in the specification.



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#### 1. Elastomeric Molded Panels

The 6'-0" elastomeric molded panels (4'-0" for Model 1300) shall be comprised of a formed steel shape suspended in an elastomeric material. The profile-riding surface shall have imbedded wear plates to ensure skid resistance and shall be capable of accommodating traffic loads. Each elastomeric molded panel shall be supplied with integrated bolthole cavities and tongue and groove end connections.

The elastomer used to mold the panels shall be manufactured of a neoprene compound exhibiting the physical properties listed in the table below:

PHYSICAL PROPERTIES	TEST METHOD	REQUIREMENT
Tensile Strength	D-412-98A	1800 (12.4)
Elongation at break min%	D-412-98A	400%
Hardness, Type Shore A Durometer	D-2240-02	40-50
Compression Set, 22hrs@158F 70c.) max.Method B (modified)	D-395-01	20%
Oil Swell, ASTM #3 Oil, 70hrs At 212F(100c) Volume Change	D-471-98	120%
Ozone Resistance,20% Strain 100 pphm in air 70hrs.@104F. (40C) (wipe with toluene to remove surface contamination)	D-1149-99	No Cracks
Low Temperature, brittleness (3min@-40F)	D-746-79(1987)	Not Brittle

Requirements shown reflect test results taken immediately following compound mixing. Results may vary and are not indicative of product performance if specimens are skived from finished, molded parts.

### 2. Steel Angle

The steel angles imbedded in the molded neoprene panels are formed from ASTM A-36steel.

## 3. Bolt Cavity Sealant

Bolt hole cavities shall be filled using a two part polyurethane sealant that meets Federal Specification TT-S-00227E. Contractors to ensure that the anchor blocks are dry from moisture prior to placement of material.



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#### 4. Edge Void Sealant

Edge voids shall be filled with a one part polysulfide base synthetic rubber sealant conforming to Federal Specification TT-S-00230C Type II Non-Sag. Contractor shall ensure that the anchor blocks are dry from moisture prior to placement of material.

## 5 Bedding Compound

Apply edge void sealant as a bedding material to the blockout base prior to placement of the elastomeric gland. Material shall be a one part polysulfide base synthetic rubber sealant conforming to Federal Specification TT-S-00230C Type II Non-Sag.

# E. Construction Requirements

The Contractor shall submit product information and necessary shop drawings after the award of the contract. At the discretion of the Engineer, the manufacturer may be required to furnish a representative sample of material to be supplied in accordance with the project specifications

Then device shall be accurately set and securely supported at the correct grade and elevation and the correct joint opening as shown on the plans and on the shop drawings.

The manufacturer instructions for the proper installation of the joint system shall be entered on the shop drawings. Shop drawings, which lack manufacturer installation instruction, may be returned without approval.

### F. Payment

The accepted quantity of bridge deck joint sealing system will be paid for at the contract unit price per lineal foot. Measurement of the bridge deck joint sealing system will be taken horizontally and vertically along the centerline of the joint system between the outer limits indicated on the contract plans. Payment will be made under:

PAY ITEM PAY UNIT

Bridge Deck Joint Sealing System Lineal Foot

Payment will be full compensation for all work necessary to complete the items including furnishing and installing the bridge deck joint sealing system and any miscellaneous patching required.