

**KANSAS DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION TO THE
STANDARD SPECIFICATIONS, EDITION 2015**

**SECTION 719
EXPANSION JOINTS**

Page 700-95, subsection 719.1, add "Preformed Elastomeric Panel" to the * list. Delete "* Type".**

Page 700-95, delete subsection 719.2c., and replace with the following:

c. Preformed Elastomeric Neoprene. Provide preformed, pressurized, elastomeric neoprene joints that comply with **DIVISION 1500**.

Page 700-95, add subsection 719.2f.:

f. Preformed Elastomeric Panel. Provide a watertight joint that complies with **DIVISION 1500**. Fabricate the anchoring and support system according to **DIVISION 700**.

Page 700-96, subsection 719.3c. In last paragraph change "white rage" to "white rag".

Page 700-96, add subsection 719.3e.:

e. Preformed Elastomeric Panel. Submit shop drawings according to **SECTION 105** for each location, type and model of preformed elastomeric panel used, according to **DIVISION 700**. The Contractor is responsible for preparing shop drawings and coordinating the fabrication of the preformed elastomeric panels that require structural steel protection angles with the fabricator of the structural steel angles.

Install the preformed elastomeric panels according to the Contract Documents and the manufacturer's recommendations. Provide a technical representative of the material manufacturer at the jobsite during installation.

Show the sequence of unit installation on the shop drawings.

Allow new concrete to cure a minimum of 14 days prior installing the panels. On existing structures, repair unsound concrete to prior to placement.

Prepare blockouts as shown in the Contract Documents. When constructing the concrete forms for the ends of the bridge deck and adjacent abutment backwalls, form block-outs for the preformed elastomeric panel, according to the Contract Documents. The block-outs in the poured concrete must be uniform in depth and width, and free of irregularities.

Just prior to the sealant being applied, clean the faces of the joint by sand blasting each joint face followed by an air blast to clean incompressibles from the joint.

Install the panels over the applied sealant, starting at the curb. Proceed until reaching the field cut piece. Apply the sealant to the ends of field cut pieces prior to final placement.

Recess the top of the installed joint material a minimum of $\frac{1}{8}$ inch, and a maximum of $\frac{3}{8}$ inch below the top of the roadway deck adjacent to the joint material.

Retourque all anchors approximately $\frac{1}{2}$ hour after tightening. Fill bolt hole cavities, voids between panels sections and vertical faces of blockouts with the appropriate sealant.

Add a new SECTION to DIVISION 1500:

SECTION 1512

BRIDGE JOINT SYSTEM - PREFORMED ELASTOMERIC PANEL

1512.1 DESCRIPTION

This specification covers materials for a watertight bridge expansion joint system using steel reinforced, elastomeric, molded rubber panels as shown in the Contract Documents.

1512.2 REQUIREMENTS

a. General.

(1) Provide a watertight joint system of the movement size called out in the Contract Documents and capable of supporting traffic loads.

(2) The system consists of separate units of elastomeric molded neoprene blocks or panels that are internally reinforced with structural steel plates and angles and anchored to the bridge by bolts or studs. Adjacent panels interlock end-to-end to permit some load transfer and to maintain a watertight joint.

(3) Provide an elastomer manufactured from neoprene that complies with **TABLE 1512-1**.

TABLE 1512-1: ELASTOMERIC MOLDED PANELS		
Property	ASTM Test Method	Requirement
Tensile Strength	D 412	1800 psi, minimum
Elongation at Break	D 412	400% minimum
Hardness, Shore A Durometer	D 2240	45±5 points
Compression Set, 22 hrs @ 70°C	D 395, Method B	20% maximum
Low Temperature Brittleness, 3 minutes @ -40°C	D 746	Not Brittle
Ozone Resistance, exposure @ 100 PPHM ozone for 70 hrs. @ 40°C, sample under 20% strain	D 1149	No Cracks
Oil Deterioration, volume increase after immersion in ASTM #3 Oil for 70 hrs. @ 100°C	D 471	120% maximum

PPHM = Parts Per Hundred Million

(4) Provide a bolt cavity and edge void sealant that complies with the recommendations of the manufacturer of the joint system.

(5) Fasten the panels to the bridge with bolts or studs that complies with details in the Contract Documents and are of a length recommended by the assembly manufacturer.

(6) Provide internal reinforcement plates or angles that comply with the requirements of ASTM A 1011 SS Grade 36 or ASTM A 36.

1512.3 TEST METHODS

Test the materials in accordance with the ASTM standards referenced above.

1512.4 PREQUALIFICATION

None required.

1512.5 BASIS OF ACCEPTANCE

Receipt and approval of a Type D Certification as specified in **DIVISION 2600**.

Visual inspection at the point of usage for condition and compliance with dimensional requirements.