

# 1509 - MEMBRANE SEALANT

## SECTION 1509

### MEMBRANE SEALANT

#### 1509.1 DESCRIPTION

This specification covers the membrane sealant used in expansions joints as designated in the Contract Documents.

#### 1509.2 REQUIREMENTS

**a. Foam Sealant.** Provide a foam sealant consisting of an open-cell high density polyurethane foam impregnated with either a polymer modified bitumen or a neoprene rubber suspended in chlorinated hydrocarbons. Precompress the foam sealant prior to packaging. Use a precompressed dimension as recommended by the sealant manufacturer to provide a water tight seal throughout a joint movement range of  $\pm 25\%$  (minimum) from the specified joint opening dimension. Do not allow the precompressed dimension to exceed 75% of the joint opening width. Provide a foam sealant that is slowly self expanding to permit workers ample time to install the foam before the foam exceeds the joint opening width. Supply the foam in pieces 5 feet in length or longer. Miter the ends of each piece for ease of joining to the adjacent pieces.

Provide the foam sealant in 3 inch deep pieces (minimum). Provide foam sealant that is ultra-violet and ozone resistant. Provide the foam sealant that meets the requirements shown in **TABLE 1509-1**:

TABLE 1509-1 FOAM SEALANT		
Property	Test Method	Requirements
Tensile Strength	ASTM D3574	21 PSI min.
Elongation, Ultimate	ASTM D3574	125% $\pm$ 20%.
Density, Uncompressed		9 lb./cu. ft. min.
Compressed Density at Joint Width		45 lb./cu.ft. min.
Compression Set	ASTM D3574	3% max.
Softening Point	ASTM D816	140°F. min.
Low Temperature Flexibility (32°F to -10°F)	ASTM C711	No Cracking or Splitting

**b. Bonding Adhesive.** Provide a waterproof epoxy adhesive that is compatible with concrete and recommended by the manufacturer of the foam sealant.

**c. Splice Adhesive.** Provide any polyurethane adhesive recommended by the manufacturer of the foam sealant.

#### 1509.3 TEST METHODS

Test in accordance with the requirements stated in **subsection 1509.2**.

#### 1509.4 PREQUALIFICATION

None required.

#### 1509.5 BASIS OF ACCEPTANCE

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

Visual inspection at destination for condition and compliance with dimensional and other requirements.