

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**:

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.