

1509 - BRIDGE EXPANSION JOINT GAP REPAIR SYSTEM

SECTION 1509

BRIDGE EXPANSION JOINT GAP REPAIR SYSTEM

1509.1 DESCRIPTION

This specification covers material and preparation procedures for bridge expansion joint gap repair as shown on the in the Contract Documents.

1509.2 REQUIREMENTS

a. Use nosing material that is a two-component rapid curing liquid polymer that cures to a dense semi-flexible weather, abrasion and impact resistant polymer and complies with **TABLE 1509-1**:

TABLE 1509-1: TWO-COMPONENT POLYMER NOSING MATERIAL (Without Aggregate Component)		
Combined Components: Part A (Base) & Part B (Reactor)		
Property	Requirement	
Mixing Ratio	1:1 by weight or volume	
Viscosity	Average 100 centipoises	
Color	Black	
Weight/Gallon	Average 9.5 lbs.	
Pot Life	@ 50°F - 60 minutes (In 8 oz. mass) @ 60°F - 50 minutes (In 8 oz. mass) @ 70°F - 40 minutes (In 8 oz. mass)	
Cured Properties: (Polymer Nosing Material)		
Property	Test Method	Requirement
Tensile Strength	ASTM D 638	900 psi. (Min.)
Tensile Elongation	ASTM D 638	50% (Min.)
Shore "D" Hardness	ASTM D 2240	45 - 55

b. Use a tack coat that consists of just the two-component polymer nosing material without any aggregate component. Thoroughly combine the Part A (Base) and Part B (Reactor) components in the proper ratio of one volume base to one volume reactor prior to use. Complete mixing using a slow speed hand drill with a paint-type paddle stirrer or as recommended by the nosing manufacturer. Comply to the manufacturer's recommendations for mixing and application time.

c. The nosing mortar consists of a mixture of the two-component polymer nosing material and a clean, well graded dry silica sand such as flint shot or any clean dry sand in the No. 4 – No. 30 mesh sieve size. Mix the Mortar using an electric powered mortar mixer or as recommended by the manufacturer, in the proper proportions as recommended by the manufacturer. No variation in the mix will be permitted without the approval of the manufacturer and the Engineer.

d. Apply the tack coat to the prepared block-out area before any mortar is placed. The mortar must be placed and finished within 30 minutes of mixing, and before the tack coat has set. Mortar of sufficient thickness can be ready for traffic in 2-4 hours depending on the air temperature. Allow the nosing material to cure to a minimum temperature of 45°F before the backer rod is removed and the expansion gap is cleaned.

1509.3 TEST METHODS

Test materials in accordance with the ASTM standards cited above. Test the sand using KT-2, Sieve Analysis of Aggregates.

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1509.4 PREQUALIFICATION

None required.

1509.5 BASIS OF ACCEPTANCE

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