

ITEM 10567.99 M - LONGITUDINAL JOINT CLOSURE SYSTEM - ON BRIDGE

DESCRIPTION

The work shall consist of furnishing and installing a Longitudinal Joint Closure System in accordance with the details shown on the plans and the requirements of the specifications.

MATERIALS

The Contractor shall furnish a manufacturer's certification that the materials proposed will meet the requirements as set forth in the specification.

1. Traffic Bearing Plate

The traffic bearing plate shall be steel conforming to ASTM A36M meeting the requirements of NYSDOT Standard Specifications, Construction and Materials, Section 715-01. It shall have 6mm holes to receive a 16D common nail (galvanized) for anchorage to the backer rod along the longitudinal centerline at 300mm intervals. The standard 1.800m long plate shall be a minimum thickness of 6mm and 200mm in width.

2. Backer Rod

A closed cell foam cylindrical backer rod should be capable of withstanding the temperature of the hot modified elastomeric binder.

Backer rod supplied for this work shall be one of the following or approved equal:

BRAND NAME	SUPPLIER/LOCATION
Cera-Rod	W. R. Meadows, Inc., Elgin, IL
Ceva-Rod 1000	E-poxy Industries, Inc., Ravenna, NY
Denver Foam	Platue Supply Inc., Denver, CO
Hot Rod XL Tundra Foam	Industrial Thermo Polymer Ltd., Mississauga, Ontario, Canada
HBR-XL	Hercules Inc., Wilmington, DE

3. Modified Elastomeric Binder

Modified Elastomeric Binder shall also meet or exceed the requirements of ASTM 3405 and ASTM 1190 and have the following physical properties:

<u>Physical Properties</u>	<u>Test Method</u>	<u>Requirement</u>
Cone penetration @ 25°C	ASTM D3407	75 max
Resilience	ASTM D3407	60% min
Bond @ -18°C (100% extension)	ASTM D3407	Pass 3 cycles
Flow @ 60°C	ASTM D3407	2mm max

ITEM 10567.99 M - LONGITUDINAL JOINT CLOSURE SYSTEM - ON BRIDGE

Asphalt compatibility	ASTM D3407	complete
Ductility	ASTM D113	40 min.

Documentation shall be submitted to the NYSDOT Materials Bureau for approval.

CONSTRUCTION DETAILS

Where indicated and noted on the contract plans, install Longitudinal Joint Closure System in a neat and workmanlike manner. All surfaces to receive Traffic Bearing Plate shall be ground smooth, free from dirt, water and any other loose foreign debris which may be detrimental to effective joint sealing.

Modified Elastomeric Binder Placement. Melt the elastomeric binder in a double jacketed kettle and heat to a minimum of 193°C but Do Not exceed 204°C. Pour the heated binder over the backer rod in the joint opening to seal the gap. Also apply the heated binder over the existing concrete surface approximately 200 mm each side of the joint opening to form a monolithic membrane approximately 1.5 mm to 3 mm thick.

Traffic Bearing Plate Placement. The steel traffic bearing plates are centered over the joint opening end-to-end along the joint with no overlapping. Centering pins (16D common nails) are installed in the pre-drilled holes and inserted directly into the modified elastomeric binder plug. These pins are designed to hold the plates in place. The heated binder shall be poured over the closure plate to encapsulate it.

METHOD OF MEASUREMENT

Measurement will be made as the number of meters of Longitudinal Joint Closure System completely installed, measured along the centerline of joint system between the outer limits as indicated on the contract plans.

Payment will be full compensation for all work necessary to complete the work including furnishing and installing the Longitudinal Joint Closure System, and any miscellaneous concrete patching required.

BASIS OF PAYMENT

The unit price bid per meter shall include all labor, materials and equipment necessary to complete the work.