

ITEM 18567.46 M - ELASTOMERIC CONCRETE FOR BRIDGE JOINT SYSTEMS

DESCRIPTION

The work shall consist of furnishing and placing elastomeric concrete at the joint system locations indicated on the plans.

An experienced technical representative from the manufacturer of the elastomeric concrete shall be present during all phases of substrate preparation and material installation.

This material is proprietary. There is a possibility that royalty payments will be required.

MATERIALS

All elastomeric concrete components and primer materials shall be shipped in strong substantial containers sealed in a manner acceptable to the Engineer. Each container shall be plainly marked with the following:

1. Product Name.
2. Component Part.
3. Name and Address of Manufacturer.
4. Volatile Organic Compound (VOC) content (expressed in kilograms per liter).
5. Date of Manufacture.
6. Date of Expiration of Acceptance.
7. Batch Number.

All elastomeric concrete used for this work shall be either a pre-approved material or an experimental material.

Pre-approved Material. The product name of each pre-approved material appears on the Department's Approved List of Elastomeric Concretes. Pre-approved material shall be accepted at the project site based on the following:

1. Two copies of Materials Details for the elastomeric concrete shall be supplied to the Engineer at least ten days prior to the intended use of the product.

The reference number and date of the Materials Details shall be identical to those shown on the Approved List.

2. Certification in writing by the Manufacturer that all materials being used are identical in formulation to those approved by the Materials Bureau shall be submitted to the Engineer (EIC) prior to any material installation.

Experimental Material. Experimental elastomeric concrete shall be approved by the Director, Materials Bureau as a suitable substitute for pre-approved material prior to delivery to the job site. Full details

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regarding the process for designating an elastomeric concrete material as experimental may be obtained from the Director, Materials Bureau. Experimental material shall be accepted at the project site based on the following:

1. A copy of a letter from the Director, Materials Bureau stating that the experimental product is acceptable for use on the project in question. The letter shall include the contract number of the project for which use is approved and the Materials Details reference number and date. The letter shall be given to the Engineer prior to the delivery of any material.
2. Two copies of the Materials Details identified in the above letter supplied to the Engineer at least ten days prior to the intended use of the product.
3. Certification in writing by the Manufacturer that all materials being used are identical in formulation to those approved for experimental use by the Materials Bureau. This certification shall be submitted to the Engineer prior to any material installation.

Only one material, supplied by a single supplier, shall be used for this work. The combining of materials, or the installation of different materials at separate locations, will not be permitted unless specifically approved by the Director, Materials Bureau.

CONSTRUCTION DETAILS

The contractor shall notify the Director, Materials Bureau through the Engineer a minimum of seven days prior to installation of the elastomeric concrete (pre-approved or experimental material). Notification will include the contract number, elastomeric concrete product name, and approximate date of installation.

An experienced technical representative employed by the Manufacturer of the elastomeric concrete shall be present during all phases of substrate preparation and material installation. No material placement will be permitted unless the Technical Representative is at the placement site. Waivers of this requirement may be granted only by the D.C.E.T.S. The representative shall:

1. Advise both the Engineer and the Contractor regarding proper installation procedures to assure the elastomeric concrete is installed correctly.
2. After installation is completed, certify to the Engineer in writing that the elastomeric concrete was installed in accordance with the Manufacturer's requirements.

The material shall be installed in strict accordance with the installation instructions included in the Materials Details and the recommendations of the Manufacturer's Technical Representative. In the event of a conflict, the Engineer will contact the Director, Materials Bureau, prior to the placement of any elastomeric concrete material. All resolutions made by the Director, Materials Bureau shall be final and binding.

Unless the Materials Details require more thorough cleaning, the following surface cleanliness

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requirements shall apply:

1. All metal surfaces to come in contact with the elastomeric concrete shall be abrasive blast cleaned in accordance with the requirements of SSPC SP-6 Commercial Blast Cleaning. All cleaned metal surfaces shall correspond to SSPC Vis-1, surface preparation grades BSA2 or CSA2, as applicable. No visible rust will be permitted.
2. All concrete surfaces to come in contact with the elastomeric concrete shall be abrasive blast cleaned of all laitance, oil, grease, or any other material which may affect the bond between the elastomeric material and the concrete.

Immediately prior to material installation all receiving surfaces shall be vacuumed clean or air-blown clean with oil-free compressed air. No loose material of any nature shall be permitted on any receiving surface.

Because of the stiff consistencies and fast setting properties of elastomeric concretes, care shall be exercised to eliminate voids in the material. It is essential to the performance of the joint that the elastomeric concrete completely fills the space under the steel extrusion in order to provide the necessary support.

After the elastomeric concrete has been installed, cured and exposed to normal daily vehicular traffic for a minimum of five days, a watertightness integrity test shall be performed. The watertightness test shall be performed in accordance with the requirements of subsection 567-3.01H.

METHOD OF MEASUREMENT

The work will be measured as the number of meters of elastomeric concrete installed as required. Measurement will be taken along the centerline of joint system, between the outer limits of the installed material. Only a single measurement will be taken along each installed joint system regardless of the number of recesses, openings, or voids, filled with elastomeric concrete. Measurement will be taken only after the completion of a watertightness test meeting all of the requirements and conditions of subsection 567-3.01H .

BASIS OF PAYMENT

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

No payment will be made for any material installed as replacement material for that removed, unless the Engineer certifies that the reason for removal was beyond the contractor's control, or the plans specifically require removal.