

**ITEM 10584.30 M - EPOXY GRIT SURFACE FOR BASCULE SPAN
SIDEWALK**

DESCRIPTION

This specification covers the application of a polymer concrete compound to the steel deck. The polymer concrete overlay shall be the final pedestrian traffic wearing surface and at least 13 millimeters thick. The Contractor shall provide all labor, materials, equipment, and incidentals necessary to complete the installation.

MATERIALS

The polymer concrete shall be composed of a epoxy resin base, epoxy resin hardener and a #8 basalt aggregate. The epoxy resin base and hardener will be a 100% solids, thermosetting, moisture-insensitive, flexible, highly elastic compound. The #8 Basalt Aggregate as per Manufacturers recommendations.

The manufacturers are as follows or approved equal may be used to supply the epoxy grit overlay:

	<u>Manufacturer</u>	<u>Product</u>
1.	Tamms Industries Co. 7405 Production Drive Mentor OH 44060 (800) 218-8219	Flexolith
2.	Fosroc Inc. Construction Division 150 Carley Court Georgetown, KY 40324 (800) 645 - 1258	Trafficguard EP31 System
3.	Transpo Industries, Inc. 20 Jones Street New Rochelle, NY 10801 (914) 636-1000	Transpo T-45

CONSTRUCTION DETAILS

All work to be done under this section shall be of the highest standard in every particular and strictly in accordance with the manufacturer's instructions and recommendations. The installation shall be performed by a Contractor having at least five (5) years prior experience in the use and application of the specified material and shall employ key personnel with at least five (5) years experience in the application of this type of polymer concrete. A manufacturer's technical representative shall be present during the initial start of the application or until the methods and procedures are found to be acceptable by the representative. Curing instructions and safety precautions shall be rigidly followed.

All materials shall be delivered in their original containers with seals unbroken, bearing the manufacturer's label, specifying trade name, brand, quality, and mixing ratio. They shall be ordered in sufficiently large quantities and shall be delivered in ample time to facilitate the work. The material shall be stored on the premises where directed, if practical. The storage space shall be kept clean and dry and the temperatures of the storage space may not fall below that of 16°C. Every precaution shall be taken to avoid excessive high temperatures in the storage space and contact with flame.

The Contractor shall provide suitable coverings to protect his own work, the work of others, and all

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adjacent surfaces and objects. Finished equipment and surfaces shall be masked for protection. Drop cloths, where necessary, shall be placed in an approved manner to adequately protect all surfaces.

All surfaces shall be dry, clean and free from dirt, dust, grease, and contaminants which might prevent the proper adhesion of the overlay. All steel surfaces to receive the polymer concrete overlay shall be cleaned to a minimum steel surface condition of SSPC-SP10 using either shot, grit or sand blasting. The cleaned steel surfaces shall be primed, if necessary, as per manufacturer's instructions. In addition, the cleaning of the steel surfaces shall be performed just prior to the placement of the polymer concrete overlay so as to insure the surfaces are not exposed to fresh contamination due to traffic or weather. Should the surfaces be exposed for an excessive period of time, upon the Engineers determination, surfaces shall be cleaned again.

All loose particles of sand and/or shot from the cleaning operations shall be removed prior to priming and/or application of the epoxy grit overlay system.

The epoxy resin and hardener shall be mixed in clean, dry metal containers in strict accordance with manufacturers instructions.

The application of the polymer concrete overlay may be done by using either the Broom and Seed method (multiple coat system) or the Slurry method (single coat system). Prior to commencement of the application, a demonstration application shall be made at a location off-site, to be selected by the engineer to demonstrate procedure, thickness, and suitability of technique. Following approval of the demonstration sample and surface preparation by the Engineer and manufacturer, the Contractor shall immediately proceed with application of the polymer concrete overlay. Only those surfaces that can be covered by the polymer concrete overlay in one day shall be prepared in advance.

The excess aggregate shall be cleaned from the surface after the overlay has cured between coatings of the epoxy without damaging the overlay.

Total overlay thickness shall be 13 millimeters.

The complete overlay shall be allowed to cure sufficiently before opening to pedestrian traffic. Cure time depends upon temperature of deck and air. The actual degree of cure and suitability for traffic shall be determined by the manufacturer and Engineer on the actual overlay.

METHOD OF MEASUREMENT

The work will be measured by the number of square meters of epoxy grit surface satisfactorily installed on the bascule span sidewalk in manner approved by the Engineer.

BASIS OF PAYMENT

The unit price bid per square meter of epoxy grit surface shall include the cost of all labor, materials, tools, equipment and all incidentals necessary to complete the work (surface preparation, mixing, application of the epoxy grit overlay and cleanup) in this specification and as shown on the Plans. No separate payment will be made for test panels or providing a manufacturer's representative in the field. The cost of Test Panels and providing the manufacturer's representative in the field shall be incorporated in the unit price bid for this work.