

DESCRIPTION

The work shall consist of furnishing and applying a membrane waterproofing system consisting of membrane primer and waterproof membrane applied to the surface of the precast concrete structure walls as shown on the Contract Plans.

The work shall include the preparation of concrete surfaces. The CONTRACTOR shall select, furnish and apply the membrane waterproofing system indicated in this specification.

MATERIAL

The membrane system shall be Bituthene 4000 Preformed System - shall consist of Bituthene Primer B2, if needed, Bituthene System 4000 Surface Conditioner, Bituthene Liquid Membrane, Bituthene Mastic, Bituthene Protection Board Adhesive and Bituthene Pre-Formed Membrane, and; all as manufactured by WR Grace and Company, Cambridge, Massachusetts. In addition, PQ2550 Protection Board as manufactured by PermaQuik, Inc., Williamsville, NY, or approved equal, shall be placed on top of the membrane.

CONSTRUCTION DETAILS

The membrane waterproofing system shall be installed in accordance with the membrane manufacturer's instructions and where shown on the Contract Plans.

Protect all materials from rain and physical damage and provide adequate ventilation. Membranes shall be stored where temperatures will not exceed 90° F for extended periods.

On new structural slabs, the minimum curing period as set forth in NYSDOT Standard Specifications, Section 555-3.09 Curing, latest revision, shall be met prior to membrane system placement.

Work shall not be done during wet weather conditions nor when atmospheric conditions are such that unsatisfactory results will be produced. The ENGINEER shall be the sole determiner of favorable atmospheric conditions. No work shall be done when the concrete structural slab surface temperature is below 50°F, or ambient temperatures are below 50°F.

The concrete structural slab shall be surface dry at the time of application of the membrane waterproofing system.

All concrete surfaces shall be smooth, monolithic and free of voids, spalled areas, loose aggregate and sharp protrusions and contain no visible coarse aggregate. Cure concrete with clear, resin based curing compounds containing no oil, wax, or pigment. Concrete shall be allowed to dry thoroughly following rain.

All joints shall be sealed with waterstop, joint filler and sealant as required. Prestrip all slab and wall cracks over 1/16" width and all construction and control joints with 9" wide membrane.

ITEM C559.50

MEMBRANE WATERPROOFING SYSTEM

For horizontal surfaces apply membrane from the low point to the high point so that laps shed water. Overlap all seams at least 2” and stagger all end laps. Roll the entire membrane firmly and completely as soon as possible with a linoleum roller or standard waterfilled garden roller less than 30” wide, weighing a minimum of 75 lbs when filled. Cover the face of the roller with a resilient material such as ½” plastic foam or two wraps of indoor-outdoor carpet to allow the membrane to fully contact the primed substrate. Should any part of the membrane be damaged during the rolling process, such material shall be removed and replaced with new membrane at the CONTRACTOR's expense.

Once the membrane is installed in accordance with the manufacturer’s recommendations, a protection board shall be installed on top of the membrane. This board shall be adhered to the membrane using Bituthene Protection Board Adhesive. The protection board shall be PQ2550 Protection Board as manufactured by PermaQuik, Inc., Williamsville, NY, or approved equal, and shall be installed over the entire deck membrane surface, including vertical portions.

METHOD OF MEASUREMENT

The quantity to be measured for waterproof membrane shall be the number of square yards (area) installed in the completed work.

BASIS OF PAYMENT

The quantity to be paid for shall be the number of square yards of membrane incorporated in the work. This includes all primers, mastic, liquid membrane, and protection board used to complete the system. The unit price bid shall include the cost of furnishing all labor, materials, and equipment necessary to satisfactorily complete the work.

Payment will be made under:

<u>Item No.</u>	<u>Item</u>	<u>Pay Unit</u>
C559.50	Membrane Waterproofing System	SY