

SECTION 07143
BARR Waterproofing
LIQUID-APPLIED WATERPROOFING

PART 1 - GENERAL

1.1 SECTION INCLUDES:

Installation of waterproofing membrane on surfaces indicated on drawings, consisting of preparation of existing and repaired concrete surfaces, sealing of cracks and joints, and application of Barr Liquid-Applied Waterproofing Membrane.

1.2 RELATED SECTIONS

- A. Section 03150 - Expansion Joints.
- B. Section 03300 - Cast-In-Place Concrete.
- C. Section 07900 - Caulking and Sealants.
- D. Division 15 - Floor Drains and Standpipes.
- E. Division 16 - Conduit and other Electrical.

1.3 REFERENCES

ASTM C 836 High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for use with Separate Wearing Course.

1.4 SYSTEM DESCRIPTION

Product provided by this Section is a coal tar free polyether liquid designed to create a seamless waterproofing membrane.

1.5 SUBMITTALS

- A. General: Submit in accordance with Section 01300.
- B. Product Data: Submit manufacturer's product literature and installation instructions.
- C. Subcontractor's approval by Manufacturer: Submit document stating manufacturer's acceptance of subcontractor as an Approved Applicator for the specified materials.
- D. Warranty: Submit a sample warranty identifying the terms and conditions stated in Section 1.7.

1.6 QUALITY ASSURANCE

- A. Applicator Qualifications: Applicator shall be experienced in applying the same or similar materials and shall be specifically approved in writing by the membrane system manufacturer.
- B. Pre-Application Conference: Prior to beginning work, convene a conference to review conditions, installation procedures, schedules and coordination with other work.

1.7 WARRANTY

Upon completion and acceptance of the work required by this section, the manufacturer will issue a warranty agreeing to promptly replace defective materials.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to project site in original, factory-sealed, unopened containers bearing manufacturer's name and label intact and legible with following information.
 - 1. Name of material.
 - 2. Manufacturer's stock number and date of manufacture.
 - 3. Material safety data sheet.
- B. Recommended storage and application temperature is 70 degrees F. Store materials in protected and well ventilated area.

1.9 PROJECT CONDITIONS

- A. Do not apply membrane if temperature is less than 40 degrees F., if precipitation is imminent.
- B. Coordinate waterproofing work with other trades to ensure adequate illumination, ventilation, and dust-free environment during application and curing of membrane. The applicator shall have sole right of access to the specified areas for the time needed to complete the application and allow the membrane to cure adequately.
- C. Protect adjoining surfaces not to be coated against damage or soiling. Protect plants, vegetation and animals which might be affected by waterproofing operations.
- D. Warn personnel against contact of material with skin or eyes. Wear applicable protective clothing and protective gear according to manufactures MSDS.
- E. Maintain work area in a neat and orderly condition, removing empty containers, rags, and rubbish daily from the site.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

Provide Barr Liquid Applied Waterproofing Membrane as manufactured by Chem Link Inc. 353 E. Lyons St., Schoolcraft, MI 49087, Phone 800-826-1681.

2.2 PRODUCTS

- A. Waterproofing membrane shall be BARR Liquid Waterproofing and shall meet or exceed the requirements of ASTM C 836.

2.3 ACCESSORY PRODUCTS

- A. Surface Primer: As recommended by manufacturer for each surface encountered.
- B. Sealants: Shall be NovaLink or DuraLink polyether sealants.
- C. Backing Rod: Shall be closed-cell polyethylene foam rod.
- D. Flexible Flashing: Shall be as recommended and supplied by coating manufacturer.
- E. Protection Course: If required shall be approved by manufacture prior to installation.
- F. Drainage Composite: Shall be recommended by the manufacturer for each condition.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Before any waterproofing work is started the waterproofing applicator shall thoroughly examine all surfaces for any deficiencies. Should any deficiencies exist, the architect, owner, or general contractor shall be notified in writing and corrections made.
- B. Condition of Concrete Surfaces:
 - 1. The concrete surfaces shall be of sound structural grade, minimum of 2500 PSI compressive strength, and shall have a wood float or fine broom finish, free of fins, ridges, voids or entrained air holes.
 - 2. Concrete shall be cured by water curing method.
 - 3. Concrete shall be cured at least 3 days and shall be sloped for proper drainage.
 - 4. Control joints and/or expansion joints shall have been properly installed at strategic points throughout the field of the deck to control cracking caused by deflection and shrinkage.
 - 5. Any required crickets or drains should be installed at the time the main deck is poured. Deck should be monolithic.
 - 6. Voids, rock pockets and excessively rough surfaces shall be repaired with approved non-shrink grout or ground to match the surrounding areas.
 - 7. Two-stage drains shall have a minimum 3" flange and be installed with the flange flush and level with the concrete surface.
 - 8. Surfaces at cold joints shall be on the same plane.

3.2 SURFACE PREPARATION

- A. The concrete surface must be thoroughly clean, dry and free from any surface contaminants or cleaning residue that may harmfully affect the adhesion of the membrane.
- B. Install a 1" face, 45 degree cant of NovaLink or DuraLink polyether sealant at all angle changes and inside corners including projections through the deck, walls, curbs, bumpers, etc.
- C. All cracks over 1/16" in width and all moving cracks under 1/16" in width shall be saw cut to 1/4" minimum in width and depth. Saw cut a 1/4" by 1/4" kerf around drain flanges. Clean, prime and fill saw cuts flush with NovaLink or DuraLink polyether sealant.
- D. All moving cracks over 1/16" wide and all expansion joints less than 1" wide shall be cleaned, primed, fitted with a backing rod and caulked with NovaLink or DuraLink polyether sealant. For larger joints, contact Chem Link representative.
- E. Allow all sealant to cure a minimum of 24 hours.
- F. Apply a 6" wide, 45 mils thick stripe-coat of BARR centered over all sealed cracks, hairline cracks, joints and outside corners.
- G. Apply a 45 mil thick stripe-coat of BARR over sealant cants and extending 4" onto the horizontal deck and up the vertical wall to the height called out on the drawings (minimum 8" recommended).
- H. Allow all detail work to cure overnight.
- I. All required metal and neoprene flashings shall be installed at this time. Apply a stripe coat of BARR, 45 mils thick, 6" wide, centered over all transitions from concrete to metal flashings and reinforce with Reinforcing Fabric. Allow the stripe coat to cure over night (16 hours minimum).

3.3 APPLICATION

- A. Priming: Shall be per membrane manufacturer's instructions. Primer is not required for adhesion to dry, non-porous concrete. However, if pinhole and blistering problems occur as a result of air and/or moisture vapors emitted from the concrete and environmental conditions, it is recommended that the Chem Link representative be contacted for further instructions.
- B. Wipe all detail work with a cloth wet with isopropyl alcohol solvent.
- C. Barr Membrane: Apply in one uniform coat at the rate of one gallon minimum per 50 square feet per gallon or as needed in order to obtain a minimum thickness of 30 wet mils. Allow to cure until second coat can be applied without disrupting the initial coat, typically 24 hours. Apply another coat of BARR at the rate of 50 sq ft per gallon or 30 wet mils and allow to cure
- D. In the event the entire surface is not completed in one day, prior to beginning application the next working day clean an area 6" wide along the edge of the previously applied membrane with a cloth wet with isopropyl alcohol solvent. New work shall overlap the existing work by 6".

3.4 FLOOD TEST

- A. Allow Barr Membrane to cure for at least 36 hours. Plug drains and provide barriers necessary to contain flood water.
- B. Flood surface with 1" head of water for 24 hours. Inspect for leaks and repair membrane if leaks are found. Retest after making repairs.

3.5 PROTECTION COURSE

- A. Install Protection Board if required. Stop drainage composite 12" below final grade level.
- B. Install Protection Board immediately after flood testing on horizontal surfaces. If flood testing is delayed, install a temporary covering to protect the Barr membrane from damage by other trades.

End of Section

Barr is manufactured and produced by Chem Link Inc. revised 2006