**CSI SECTION 07 14 16 – Cold Fluid Applied Waterproofing**

**CSI SECTION 07 26 16 – Below-Grade Vapor Retarders**

**WeatherSeal BG**

**PART 1 - GENERAL**

1. **SECTION INCLUDES** 
   1. Manufacturer’s requirements for the proper design, use, and installation of a single-component, non-fibrated, asphalt modified, neoprene cold fluid-applied waterproofing membrane for use with concrete and masonry surfaces. Use with protection/drain board or mat for below-grade applications.
2. **RELATED SECTIONS**
   1. Section 02 31 50 – Filling and Backfilling
   2. Section 02 62 00 – Sub-Surface Drainage Systems
   3. Section 03 30 00 - Cast-in-Place Concrete
   4. Section 04 20 00 - Unit Masonry
   5. Section 06 16 00 - Sheathing
   6. Section 07 90 00 - Joint Protection
3. **ASSEMBLY DESCRIPTION**
   1. Parex USA WeatherSeal BG Waterproofing Membrane: Single-component, non-fibrated, asphalt modified, neoprene cold fluid-applied waterproofing membrane for use with concrete and masonry surfaces. Use with protection/drain board or mat for below-grade applications.
   2. Functional Criteria:
      1. General:
         1. Flashing: Flashing shall be continuous and watertight. Flashing shall be designed and installed to prevent water infiltration behind the cladding. Refer to Division 07 Flashing Section for specified flashing materials.
      2. Performance Requirements
         1. Adhesion (90 Peel): 10 lbs/lineal inch of width
         2. Elongation(ASTM D638): > 500%
         3. Moisture Vapor Transmission(ASTM E96): 0.04 grams/hr/ft2
         4. Tensile Strength(ASTM D638): > 240 psi
         5. Thickness: minimum 30 mils WFT, maximum 125 mils WFT
4. **SUBMITTALS**
   1. General: Submit in accordance with Division 01 General Requirements Submittal Section.
5. **QUALITY ASSURANCE**
   1. Qualifications:
      1. All materials must be manufactured by a single supplier with a minimum of 10 years experience in the production of cold liquid-applied waterproofing membranes and purchased from an authorized distributor.
      2. Manufacturers shall be ISO 9001:2000 Certified Quality System
         1. Applicator must be experienced and competent in the installation of cold liquid-applied waterproof membranes and have at least 5 years experience in work of the type required by this section and scope of the project, and acceptable to the waterproofing manufacturer.
6. **DELIVERY, STORAGE, AND HANDLING**
   1. Delivery: Deliver coating materials in original packaging with manufacturer's identification.
   2. Storage: Store materials in a cool, dry location, out of sunlight, protected from weather and other harmful environment, and at a temperature above 40°F (4°C) and below 100°F (38°C) in accordance with manufacturer's instructions.
7. **PROJECT / SITE CONDITIONS**
   1. Installation Ambient Air Temperature: Minimum of 40°F (4°C) and rising, and remain so for 24 hours thereafter.
   2. Substrate Temperature: Do not apply materials to substrates whose temperature are below 40°F (4°C) or contain frost or ice.
   3. Inclement Weather: Do not apply materials during inclement weather unless appropriate protection is employed.
   4. Materials shall not be applied if ambient temperature exceeds 100°F (38°C) or falls below 40°F (4°C) within 24 hours of application. Protect materials from uneven and excessive evaporation during hot, dry weather.
   5. Prior to installation, the wall shall be inspected for surface contamination, or other defects that may adversely affect the performance of the materials and shall be free of residual moisture.
8. **COORDINATION AND SCHEDULING:**
   1. Coordination: Coordinate waterproofing membrane materials installation with other construction operations.
9. **WARRANTY**
   1. Warranty: Upon request, at completion of installation, provide manufacturer’s Standard Limited Warranty.

**PART 2 - PRODUCTS**

1. **MANUFACTURERS**

A. Manufacturer, Basis of Design: Parex USA, Inc., 4125 E. La Palma Ave., Suite 250, Anaheim, CA 92807 Contact: Architectural Sales (866.516.0061) or Technical Support (800-224-2626).

* 1. Components: Obtain components from authorized distributors. No substitutions or additions of other materials are permitted without prior written permission from the membrane manufacturer for this project.

1. **MATERIALS**
   1. Fluid-Applied Waterproofing Membrane
      1. Parex USA WeatherSeal BG: Single-component, non-fibrated, asphalt modified, neoprene, cold fluid-applied waterproofing membrane which can be either trowel, roller, brush, or spray applied.
   2. Crack & Joint Treatment
      1. Parex USA 396 Sheathing Tape: Non-woven synthetic fiber tape to reinforce the membrane at sheathing board joints, into rough openings and other terminations into dissimilar materials.
      2. Mer-Ko PUC 1000 Caulk: Ready-to-use, single-component, gun-grade, non-sage, non-staining polyurethane joint sealant suitable for use for all properly designed, prepared concrete control joints and cracks.

EDITOR NOTE: MEMBRANE REINFORCEMENT IS OPTIONAL. EDIT BELOW AS DETERMINED SUITABLE FOR THE PROJECT.

* 1. Membrane Reinforcement
     1. Standard Reinforcing Mesh: Weight 4.5 oz. per sq. yd. (153 g/sq m); coated for protection against alkali.
     2. Burlap Reinforcing Fabric: High performance woven polypropylene engineering fabric.
     3. 8” Glass Mat Fabric: 3.41 oz. per sq. yd. (115.6 g/sq m)

1. **RELATED MATERIALS AND ACCESSORIES**
   1. Substrate Materials:
      1. Concrete Masonry (CMU): Non-painted (uncoated).
      2. Concrete (poured or pre-cast).
      3. Other approved by manufacturer writing prior to the project.
   2. Flashing: Refer to Division 07 Flashing Section for flashing materials.
   3. Protection Board / Drain Mat Board
      1. Asphalt Hardboard: Comply with ASTM D6506, Standard Specification for Asphalt Based Protection for Below-Grade Waterproofing
      2. Expanded (EPS), or Extruded (XPS), having a nominal density of 1 lb/ft³ (14 kg/m³).

**PART 3 - EXECUTION**

1. **EXAMINATION**
   1. Verify project site conditions under provisions of Section 01 00 00.
   2. Compliance: Comply with manufacturer's instructions for installation.

C. Substrate Examination: Examine prior to installation of waterproof coating materials as follows:

* + 1. Substrate shall be examined for soundness, and other harmful conditions. Concrete and masonry surfaces must be unpainted, clean, free of form release agents sound and provide a uniform surface free of depressions and ridges.
    2. Substrate shall be free of dust, dirt, laitance, efflorescence, and other harmful contaminants.
    3. Substrate construction in accordance with substrate material manufacturer's specifications and applicable building codes.
  1. Advise Contractor of discrepancies preventing proper installation of the waterproofing material. Do not proceed with the work until unsatisfactory conditions are corrected.

1. **PREPARATION**
   1. Protection: Protect surrounding material surfaces and areas during installation of system.
   2. Clean surfaces thoroughly prior to installation.
   3. Ensure drains, sleeves, curbs and projections which pass through waterproofing are properly and securely installed.
   4. Ensure surfaces are free of cracks, depressions, waves or projections which may be detrimental to proper installation of waterproofing. Repair according to manufacturer’s published guidelines.
   5. Form tie holes and bug holes larger than 1/2 inch in diameter and/or deeper than 1/8 inch must be spot filled with a concrete mix or parge coat.
   6. Cracked, pitted, honeycombed or heavily bug holed surfaces should be parge coated with patching Portland cement based underlayment.
   7. Prepare concrete surfaces as necessary using a power, washer grinder or shot blast as required to produce a clean, sound substrate.
   8. All high spots must be removed by chipping or grinding.
   9. Concrete control joints should coincide with stress relief concentration points, with a maximum spacing of 20 feet (6.1m).
2. **MIXING** 
   1. WeatherSeal BG Waterproofing Membrane is a ready-to-use material.
   2. Stir WeatherSeal BG Waterproofing Membrane prior to use.
3. **APPLICATION**
   1. General: Installation shall conform to this specification and manufacturer’s written instructions.
   2. Crack & Joint Treatment:
      1. Rout or sawcut cracks exceeding 1/16” in width and fill with caulk. Seal cracks and deep joints with PUC 1000 caulk material. Ensure proper depth-width ratio as recommended.
      2. Treat substrate surface cracks, shallow joints and flashing to substrate transitions by applying a thick coat of WeatherSeal BG Waterproofing Membrane at a minimum 15 mil (0.38mm) DFT (25-30 mil wet), over the immediate surface crack or joint using a trowel, brush or roller, ensuring complete coverage.
      3. Immediately after the waterproofing membrane has been applied and while the material is still wet, embed sheathing joint tape in the wet waterproofing membrane centered over the cracks, joints and flashing to substrate transitions. Run a trowel, roller or taping knife over the sheathing joint tape to embed it and into the wet waterproofing membrane, saturating it completely. Overlap joining runs of fabric edges a minimum of 2–1/2 inches (63.5mm).
      4. No dry or fabric material spots should be visible and the joint tape should lay completely flat and without wrinkles. Apply additional waterproofing membrane as necessary over areas to ensure embedment.
   3. Full Field
      1. Apply one thick coat of WeatherSeal BG Waterproofing Membrane at a minimum 15 mil (0.38mm) DFT (25-30 mil wet), over the properly prepared surface, using a trowel, roller or suitable spray equipment, ensuring complete coverage.

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* + 1. Immediately and while the material is still wet, embed reinforcing fabric or mesh into the wet waterproofing membrane.
    2. Run a trowel or roller over the mesh to embed it and into the wet waterproofing membrane, saturating it completely. No dry or mesh material spots should be visible and the mesh should lie completely flat and without wrinkles. Overlap successive runs of mesh edges a minimum of 2.5 inches (63.5mm). Apply additional waterproofing membrane as necessary over areas to ensure positive waterproofing (no pinholes). Apply the membrane/fabric/membrane layers in sections.
    3. Apply a second coat of WeatherSeal BG using the same methods at a minimum 15 mil (0.38mm) DFT (25-30 mil wet). Waterproofing Membrane should be a minimum 30 mils (0.76mm) DFT. For below grade applications, membrane should be a minimum 60 mils (1.52mm) DFT.
    4. Allow the entire area to dry a minimum of 24 hours at 70ºF (21ºC) 50% RH. The material must be completely dry before proceeding. Provide supplemental heat, protection from precipitation, and other protection from the elements, as needed.
  1. Install adequate protection and drainage as required before putting the area into service or backfilling. Protect the cured membrane using standard protection/drain board or mat or other building material as necessary.

1. **CLEAN-UP**
   1. Removal: Remove and legally dispose of coating from job site.
   2. Clean surfaces and work area of foreign materials resulting from material installation.
2. **PROTECTION**
   1. Provide protection of installed materials from water infiltration into or behind them.
   2. Provide protection of installed materials from dust, dirt, precipitation, and freezing during installation, and continuous high humidity until fully cured and dry.
   3. Clean exposed surfaces using materials and methods recommended by the manufacturer of the material or product being cleaned. Remove and replace work that cannot be cleaned to the satisfaction of the Project Designer/Owner.

END OF SECTION *Rev. March 2012*

*Disclaimer: This guide specification is intended for use by a qualified designer. The guide specification is not intended to be used verbatim as an actual specification without appropriate modifications for the specific use intended. The guide specification must be integrated into and coordinated with the procedures of each design firm, and the requirements of a specific project. For additional assistance, contact Parex USA’s Architectural Sales (866.516.0061)* *or Technical Support (800-224-2626).*