



**SPECIAL PROVISIONS
FOR
FLUID APPLIED WATERPROOFING**

**Woodbury County
IM-NHS-029-6(257)147--03-97**

**Effective Date
March 18, 2014**

THE STANDARD SPECIFICATIONS, SERIES 2012, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SPECIAL PROVISIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

120144.01 DESCRIPTION.

A. Summary.

Fluid applied membrane waterproofing.

B. References.

1. 40 CFR 59, Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency.
2. ASTM C 836 - Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use With Separate Wearing Course.
3. ASTM D 746 - Standard Test Method for Brittleness Temperature of Plastics and Elastomers by Impact.
4. ASTM D 5385 - Standard Test Method for Hydrostatic Pressure Resistance of Waterproofing Membranes.
5. ASTM E 96/E 96M - Standard Test Methods For Water Vapor Transmission of Materials.
6. ASTM E 154 - Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover.
7. ICC-ES AC29 - Acceptance Criteria for Cold, Liquid-Applied, Below-Grade, Exterior Dampproofing and Waterproofing Materials; ICC Evaluation Service, Inc.

120144.02 MATERIALS.

A. Manufacturers.

1. Sonneborn Building Products, ChemRex, Inc; 889 Valley Park Drive, Shakopee, MN 55379
ASD Tel; (800) 243-6739.
2. Other Acceptable Cold-Applied Elastomeric Manufacturers:
 - a. Carlisle Coatings & Waterproofing, Inc.: www.carlisle-ccw.com.
 - b. BASF Construction Chemicals-Building Systems: www.chemrex.com.
 - c. Approved equal.

B. Membrane Materials.

1. General: Cold-applied elastomeric fluid-applied membrane.
2. Product: HLM 5000 (R) single-component, bitumen modified, cold liquid applied moisture curing urethane complying with ASTM C 836 trowel, roller, spray or squeegee grade.
Manufactured by Sonneborn Building Products.
 - a. Cured Thickness 60 mils minimum.
 - b. Suitable for installation over concrete.
 - c. Shore 00 hardness; 85 per ASTM C 836.
 - d. Elongation; 600% per ASTM D 412.
 - e. Tensile strength; 150 psi per ASTM D 412.
 - f. Crack bridging; Pass 1/16 inch with no loss of bond or cracking cycled 10 times per 24 hours at 15 degrees per ASTM C 836.
 - g. Moisture Vapor Permeability; 0.15 perm inches measured in accord with ASTM E 96.
 - h. Service Temperature range; - 40 to + 120°F.
 - i. Minimum Recovery: 90%.
3. Primer: PRIMER 733; single-component solvent based.
4. Sheet Seal; Polyethylene film, clear.
 - a. Thickness: 10 mil.
 - b. Vapor Transmission Rate: 0.10 perms or less.
 - c. Product: Visqueen manufactured by Visking Company.
5. Tape: Double sided, asphaltic pressure sensitive master; 35-mil thickness 1 1/2 inch wide.

120144.03 CONSTRUCTION.

A. Submittals.

1. Product Data: Provide data for membrane, surface conditioner, flexible flashings, joint cover sheet, and joint and crack sealants.
2. Shop Drawings: Indicate special joint or termination conditions and conditions of interface with other materials.
3. Manufacturer's Installation Instructions: Indicate special procedures.
4. Warranty: Submit manufacturer warranty and ensure forms have been completed in **Owner's** name and registered with manufacturer.

B. Mock-Up.

1. Construct mock-up 100 square feet of horizontal waterproofed panel; to represent finished work including internal and external corners.
2. Locate where directed.
3. Mock-up may remain as part of the Work.

C. Field Conditions.

Maintain ambient temperatures above 40°F for 24 hours before and during application and until cured.

D. Examination.

1. Verify existing conditions before starting work.
2. Verify substrate surfaces are free of frozen matter, dampness, loose particles, cracks, pits, projections, penetrations, or foreign matter detrimental to adhesion or application of waterproofing system.
3. Verify that substrate surfaces are smooth, free of honeycomb or pitting, and not detrimental to full contact bond of waterproofing materials.
4. Verify that items that penetrate surfaces to receive waterproofing are securely installed.

E. Preparation.

1. Protect adjacent surfaces not designated to receive waterproofing.
2. Clean and prepare surfaces to receive waterproofing in accordance with manufacturer's instructions. Vacuum substrate clean.
3. Do not apply waterproofing to surfaces unacceptable to manufacturer.
4. Seal cracks and joints with sealant using methods recommended by sealant manufacturer.

F. Installation.

1. Apply surface conditioner at a rate recommended by manufacturer. Protect conditioner from rain or frost until dry.
2. At joints and cracks less than 1/2 inch in width including joints between horizontal and vertical surfaces, apply 12 inch wide strip of joint cover sheet.
3. Center joint cover sheet over joints. Roll sheet into 1/8 inch coating of waterproofing material. Apply second coat over sheet extending minimum of 6 inches beyond sheet edges.
4. Apply waterproofing in accordance with manufacturer's instructions to specified minimum thickness.
5. Seal membrane and flashings to adjoining surfaces. Install termination bar at all edges. Install counterflashing over all exposed edges.

G. Installation – Protection Board.

1. After membrane has cured, but before it becomes dusty, apply separation sheet. Lap joints to ensure complete coverage.
2. Place protection board directly against cured membrane; butt joints. Scribe and cut boards around projections, penetrations, and interruptions.
3. Adhere protection board to substrate with compatible adhesive.

120144.04 METHOD OF MEASUREMENT.

Incidental to Siphon Structures.

120144.05 BASIS OF PAYMENT.

Incidental to Siphon Structures and will not be paid for separately.