

ICC-ES Evaluation Report

ESR-2767

Issued December 1, 2008

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DIVISION:07—THERMAL AND MOISTURE PROTECTION
Section:07110—Dampproofing
Section:07130—Sheet Waterproofing

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EVALUATION SUBJECT:**PLATON FOUNDATION MEMBRANE****1.0 EVALUATION SCOPE****Compliance with the following codes:**

- 2006 *International Building Code*® (IBC)
- 2006 *International Residential Code*® (IRC)

Properties evaluated:

- Foundation dampproofing
- Wall waterproofing (IRC only)

2.0 USES

Platon foundation membrane is a below-grade, exterior-wall, sheet membrane system that performs as a foundation wall dampproofing material on cast-in-place concrete, concrete masonry, insulated concrete forms (ICFs) or treated wood foundations. In jurisdictions adopting the IRC, the membrane may be considered as a foundation wall waterproofing material for use in applications of low hydrostatic pressure (i.e., locations with perched watertables).

3.0 DESCRIPTION

Platon foundation membrane is a carbon-compounded high-density polyethylene (HDPE) sheet membrane, manufactured with a dimpled surface on one side to provide a continuous air gap between the foundation wall and the adjacent soil. The membrane keeps ground moisture (rain water) from coming into direct contact with the foundation wall. The air gap allows moisture and water vapor from indoors to condensate against the membrane, flow down to the footing and be drained away from the building. The membrane is 0.02 inch [(0.6 mm) 24 mils] thick and available in rolls 65.6 feet (20 m) in length and up

to 10 feet (3 m) in width. The membrane weighs 1.77 oz/ft² (540 g/m²). The surface pattern features double cone dimples 0.24 inch (6 mm) high and 1.18 inches (30 mm) on center. See Figure 1. The dampproofing system includes membrane material, molding, fasteners, speedclips, speedstrips and sealants.

4.0 INSTALLATION

The Platon foundation membrane must be installed in accordance with the manufacturer's published installation instructions, this report and the applicable code. The manufacturer's published installation instructions and this report must be strictly adhered to, and a copy of the instructions must be available at all times on the jobsite during installation.

The membrane is installed, with the dimpled side of the sheet facing the foundation, from the finished grade to the top of the footing. See Figure 2. The membrane is mechanically fastened to concrete walls along the undimpled top edge with Armtec-supplied Speedclips fastened with 1¹/₄-inch-long (32 mm) concrete nails at 12 inches (305 mm) on center. Speedclips must mesh two rows of dimples. The smooth tab of the membrane must be pressed against the foundation wall into a continuous bead of sealant and held by Speedclips. Platon molding may be nailed along the smooth tab with 1¹/₄-inch-long (32 mm) concrete nails centered between Speedclips in lieu of sealant.

The membrane may also be secured with Armtec-supplied 4-foot-long (1219 mm) Platon Speedstrips fastened with 1¹/₄-inch-long (32 mm) concrete nails at 8 inches (203 mm) on center in lieu of Seedclips and sealant or Speedstrips and molding. Speedstrips must mesh the top row and half of the dimples. A 1/4 inch (6.4 mm) space must be allowed between Speedstrips.

The vertical joints of the membrane must be overlapped 20 inches (50 cm) and dimples interlocked. Horizontal joints must be overlapped 6 inches (152 mm), upper course over lower course.

Manufacturer supplied Platon molding must be used to cap locations where the membrane is cut and soil could enter the air gap.

For insulated concrete forms and wood foundations, 1¹/₂-inch-long (38 mm) screws must be used in lieu of concrete nails through either the Speedclip or Speedstrip fastening plate. The ICFs must have crossties at 6 inches (152 mm) or 8 inches (203 mm) on center. The fasteners must be driven into the flanges of the crossties. The smooth tab must be pressed against a continuous bead of foam compatible sealant when using Speedclips.

5.0 CONDITIONS OF USE

The Platon foundation membrane described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 Platon foundation membrane must be installed in accordance with the manufacturer's published installation instructions, this evaluation report and the applicable code. This report governs if there are any conflicts between the manufacturer's published installation instructions and this report.
- 5.2 The backfill of the foundation must be clean soil free of rocks or other deleterious materials so as not to damage the foundation or the membrane system. For jurisdictions adopting the IBC, the backfill must be placed in lifts and compacted. The design and construction of the foundation must be in accordance with the applicable code.
- 5.3 Platon foundation membrane must be stored inside prior to installation.
- 5.4 The foundation wall protected with the membrane must be backfilled as soon as possible to protect the material from prolonged exposure to ultraviolet radiation.
- 5.5 Use of Platon foundation membrane is limited to foundation walls up to 12 feet (3.7 m) in height.
- 5.6 Use of the membrane under the IBC as waterproofing is outside the scope of this report.
- 5.7 The design and installation of the foundation drainage system is outside the scope of this report. A foundation drainage system must be provided in accordance with IBC Section 1807.4 or IRC Section R405, as applicable.
- 5.8 The use of the "Flood Boot" described in the manufacturer's installation instructions as a special waterproofing arrangement is outside the scope of this report.

6.0 EVIDENCE SUBMITTED

Data in accordance with ICC-ES Acceptance Criteria for Rigid, Polyethylene, Below-grade, Dampproofing and Wall Waterproofing Material (AC114), dated September 2008.

7.0 IDENTIFICATION

The Platon foundation membrane and manufacturer-supplied components described in this report must be identified by a stamp on the packaging that bears the manufacturer's name (Armtec) and address, the product name and the evaluation report number (ESR-2767).

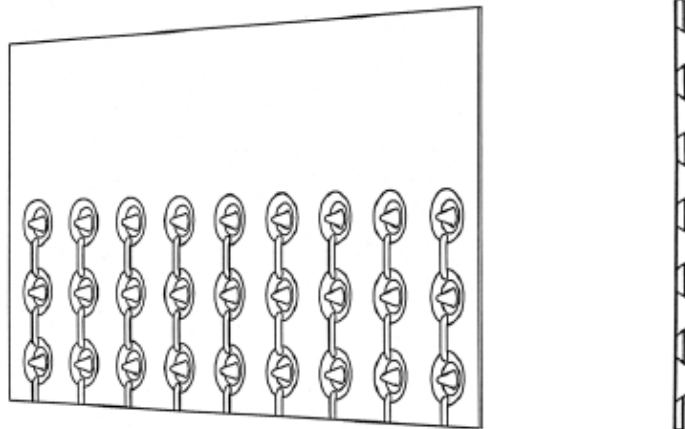


FIGURE 1— PLATON FOUNDATION MEMBRANE

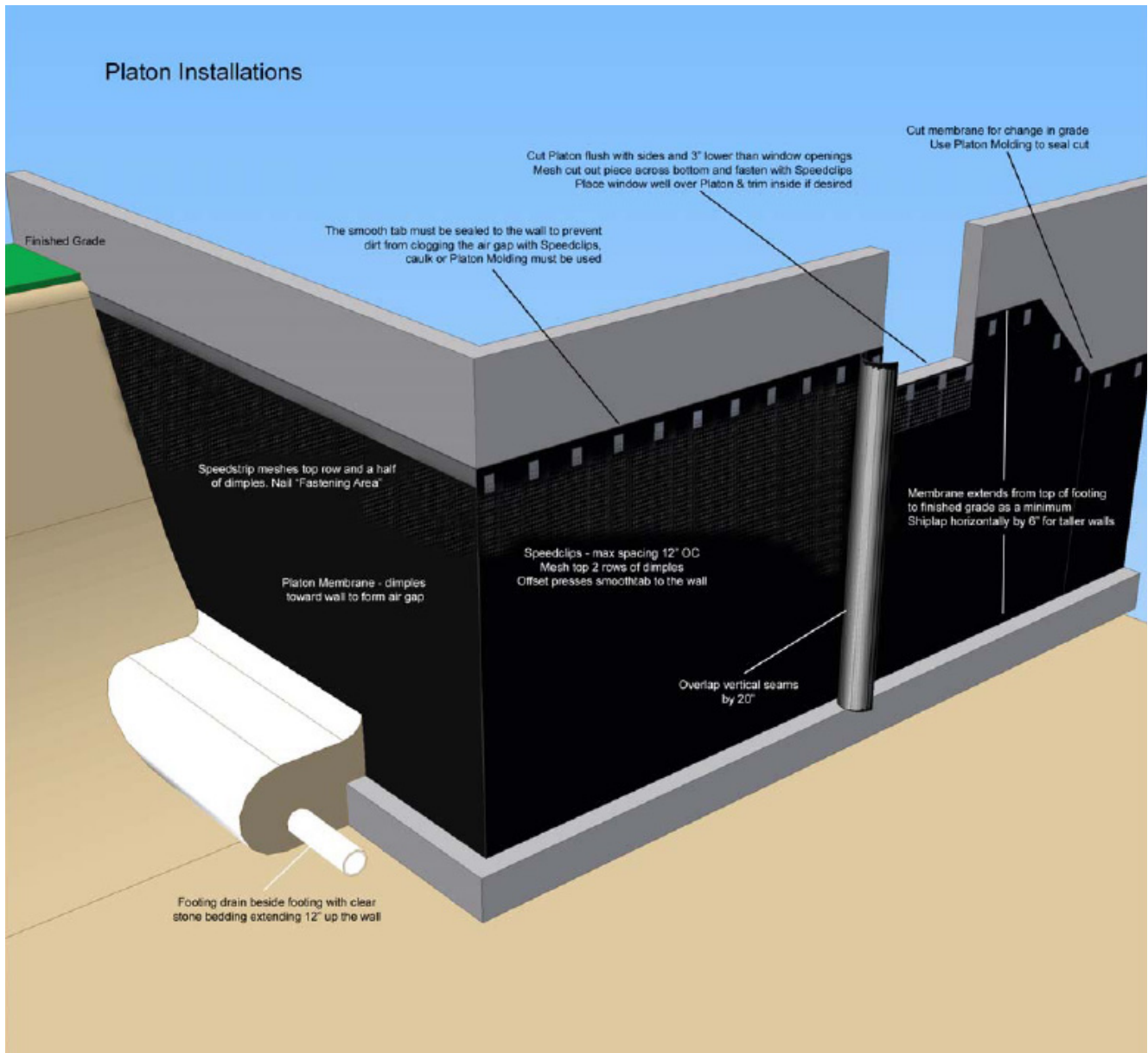


FIGURE 2—INSTALLATION DETAILS