ICC-ES Evaluation Report

ESR-3107

Reissued July 1, 2013
This report is subject to renewal August 1, 2014.

www.icc-es.org | (800) 423-6587 | (562) 699-0543 *A Subsidiary of the International Code Council®*

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 11 00—Dampproofing
Section: 07 13 00—Sheet Waterproofing

REPORT HOLDER:

SUPERSEAL CONSTRUCTION PRODUCTS LTD.
26019 31B AVENUE
LANGLEY, BRITISH COLUMBIA V4W 2Z6
CANADA
(604) 856-8411
www.superseal.ca

ADDITIONAL LISTEE:

SUPERPRO COATINGS LTD.
26019 31 B AVENUE
LANGLEY, BRITISH COLUMBIA V4W 2Z6
CANADA
(800) 571-1877

EVALUATION SUBJECT:

SUPERSEAL AND SUPERPRO DIMPLED MEMBRANES

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2009 and 2006 *International Building Code®* (IBC)
- 2009 and 2006 *International Residential Code®* (IRC)

Properties evaluated:

- Foundation dampproofing
- Wall waterproofing (IRC only)

2.0 USES

Superseal and Superpro dimpled membranes are below-grade, exterior-wall sheet membranes that perform as a foundation wall dampproofing material on cast-in-place concrete, concrete masonry, insulating concrete forms (ICFs) and treated wood foundations. Under the IRC, the membranes may be considered as a dampproofing material and as a foundation wall waterproofing material for use in applications of low hydrostatic pressure (i.e., locations with perched water tables).

3.0 DESCRIPTION

Superseal and Superpro dimpled membranes are high-density polyethylene (HDPE), semirigid, thermally formed sheet membranes, "dimpled" on one side to provide an air gap between the membrane and the wall surface. The membrane has a compressive strength of 6000 lbs/ft^2 (287 kN/m^2) and a dimple height of 0.31 inch (8 mm). The membranes are available in either black or brown color. The component products (Superseal SuperPlug, Superseal DimpleGrip Molding, Superseal Membrane Cap) are manufactured from the same HDPE material.

The membrane system includes rolls of membrane material, termination bars of Superseal Membrane Cap and Superseal DimpleGrip Molding, molding strips for vertical terminations, Superseal SuperPlug fastener clips, screws for attachment to ICFs and permanent wood foundations (PWFs), and nails for concrete block and poured concrete foundations. Sealants used for seams on the membranes must be recommended by Superseal.

The membranes must be installed with the "dimple" side against the foundation wall (refer to Figure 1), thus forming a continuous air gap around the basement wall. The membranes function to keep basements dry as follows:

- The membranes keep ground moisture (rain water) from coming into direct contact with the wall surface.
- The air gap allows construction moisture and water vapor from the interior space to condense against the membranes, flow down to the footing and drain away from the building.
- The air gap system continues to function despite any future foundation wall shifting or cracking.
- The membranes in conjunction with the air gap provide a complete capillary break.

4.0 INSTALLATION

Installation of the Superseal and Superpro dimpled membranes must comply with this report and the manufacturer's published installation instructions, available at www.superseal.ca and www.superprocoatings.com. The manufacturer's published installation instructions must be available at the jobsite at all times during installation.

Except for concrete block foundation walls, which are required to be parged, primer material or other special treatment of the wall surface is not required prior to application of the membranes. Chalk lines are made on the foundation wall at grade and at the height of the foundation dampproofing membrane to establish placement of the upper edge of the membrane and the sealant bead. The membrane is unrolled and applied to the substrate with the flat flange on the top such that wrinkles or waves in the membrane are avoided.

The membrane is fastened along the top edge and in the dimpled body below the identification strip marked "SUPERSEAL" or "SUPERPRO" with fasteners supplied by Superseal Construction Products, Ltd. Screws must be used for ICFs and nails for concrete block and cast-in-place concrete foundation walls. For ICF foundations, fastener spacing is determined by the spacing of the ICF cross-ties; fasteners must be installed in the flanges of the cross-ties. Superseal DimpleGrip Molding or Superseal

Membrane Cap must be located along the top flange of the membrane and fastened to the membrane at 6 to 8 inches (152 to 203 mm) on center. The membrane must be lapped a minimum of 6 inches (152 mm) horizontally and 6 inches (152 mm) vertically with the dimples interlocked. A continuous $^1/_2$-inch (12.7 mm) bead of sealant must be applied at all lapped edges of the membrane and between the plug and nail locations at lapped edges.

The membrane must be installed tight to foundation wall penetrations, and sealed at the entire intersection between the membrane and the penetrating item.

5.0 CONDITIONS OF USE

The Superseal and Superpro dimpled membranes described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

5.1 Installation must comply with this report, the manufacturer's published instructions and the applicable code. In the event of a conflict between the manufacturer's published installation instructions and this report, this report governs.

5.2 The backfill of the foundation must be clean soil free of rocks or other deleterious materials and placed 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 is outside the scope of this report. For jurisdictions adopting the IRC, local backfilling requirements must be followed. Caution must be taken so as not to damage the foundation or the membrane system.

5.3 The membranes must not be installed on foundation walls more than 16 feet (4.88 m) in height.

5.4 Use of the membrane as waterproofing under the IBC is outside the scope of this report.

5.5 The design and installation of the foundation drainage system is outside the scope of this report. The foundation drainage system must be installed in accordance with 2009 IBC Section 1805.4 (2006 IBC Section 1807.4) or IRC Section R405, as applicable.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Rigid Polyethylene, Below-grade, Dampproofing and Wall Waterproofing Material (AC114), dated February 2004 (editorially revised September 2011).

7.0 IDENTIFICATION

The Superseal and Superpro dimpled membranes and manufacturer-specified system components must be identified by a stamp on the packaging that bears the manufacturer's name (Superseal Construction Products Ltd.) and the product name. The Superpro dimpled membranes must be identified by a stamp on the packaging that bears the manufacturer's name (Superpro Coatings Ltd.) and the product name. The Superseal and Superpro dimpled membranes must also be identified with the evaluation report number (ESR-3107).

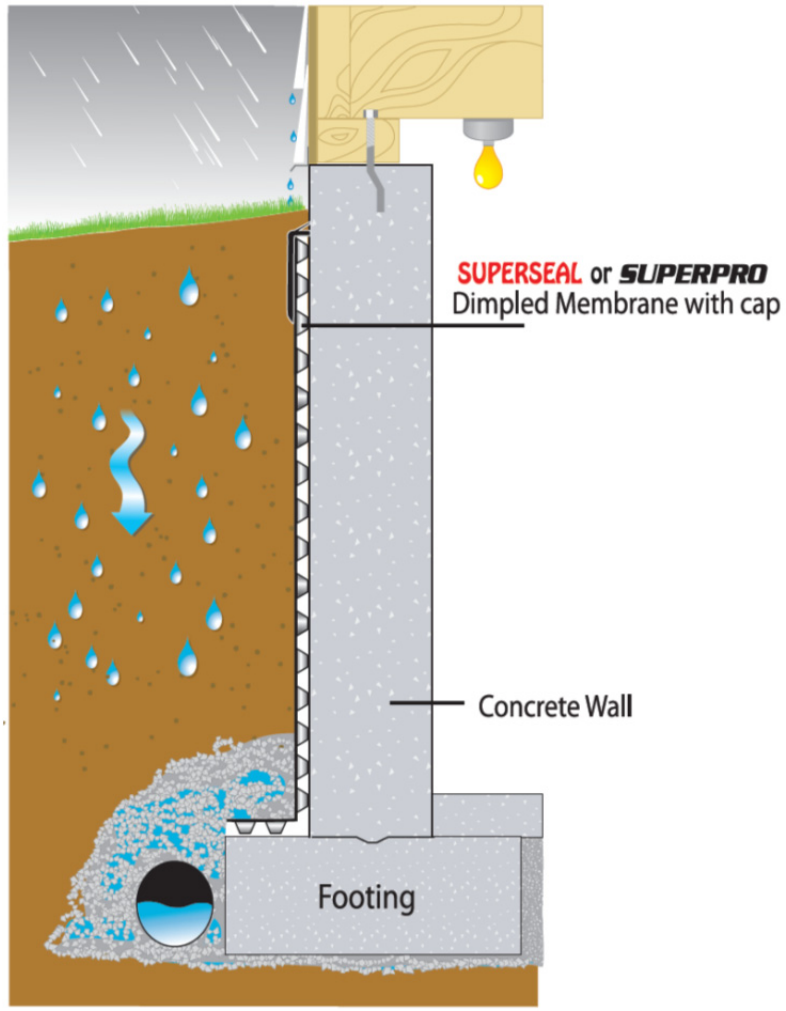

FIGURE 1—TYPICAL MEMBRANE INSTALLATION DETAIL