ICC-ES Evaluation Report

ESR-3465

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Subject to renewal September 2025

DIVISION: 07 00 00 - THERMAL AND MOISTURE PROTECTION Section: 07 11 00—Dampproofing Section: 07 13 00—Sheet Waterproofing	REPORT HOLDER: HYDRO-GARD, LLC	EVALUATION SUBJECT: HYDRO-PRUFE® 80 MIL POLYVINYL CHLORIDE (PVC) DAMPROOFING AND WALL WATERPROOFING MEMBRANE SYSTEM	

1.0 EVALUATION SCOPE

1.1 Compliance with the following codes:

- 2012 and 2009 *International Building Code®* (IBC)
- 2012 and 2009 *International Residential Code®* (IRC)

Properties evaluated:

- Foundation dampproofing
- Wall waterproofing

1.2 Evaluation to the following green standards:

- 2020, 2015, 2012 and 2008 *ICC 700 National Green Building Standard™* (ICC 700-2020, ICC 700-2015, ICC 700-2012 and ICC 700-2008)

Attributes verified:

- See Section 3.0

2.0 USES

The Hydro-Prufe® 80 mil polyvinyl chloride (PVC) membrane system is a below-grade, exterior-wall sheet membrane system that performs as a foundation wall dampproofing and waterproofing material on cast-in-place concrete, concrete masonry, shotcrete, insulating concrete forms (ICFs) and treated wood foundations.

3.0 DESCRIPTION

Hydro-Prufe® 80 mil PVC membrane is a flexible, unreinforced, extruded sheet membrane system installed over a substrate buffer mat, and induction welded to adhesive coated metal induction plates which are pre-secured to code-complying substrates. Seams in the membrane are heat-fused, and the membrane, once installed, provides a continuous barrier to water ingress. A drainage medium is installed over the Hydro-Prufe® 80 mil PVC to allow groundwater to drain away from the building. An optional layer of Hydro-Prufe® high-density polyethylene can be installed over the drainage medium to provide additional protection.

The Hydro-Prufe® system includes: substrate buffer mat (Hydro-Ultra Mat); adhesive coated metal induction plates (Induction plates); dampproofing/waterproofing membrane (Hydro-Prufe® 80 mil PVC membrane); Gard-Drain drainage medium (Gard-Drain and Gard–Drain BCS Base Drain); membrane flashings (Hydro-Prufe® PVC flashings); optional high-density polyethylene protective layer (HDPE protective layer); termination stops (Hydro-Prufe® PVC extruded waterstop); and sealant tape (Gard-Stop SK tape).

The membrane system must be installed so as to form a continuous seal around the basement wall. The substrate is to be cleaned and prepared prior to installation. Hydro-Ultra Mat is placed against the substrate to level the substrate for installation. Induction plates are anchored into the substrate through the Hydro-Ultra Mat. Hydro-Prufe® 80 mil PVC membrane is installed over the Hydro-Ultra Mat, and is induction welded to the pre-placed induction plates to anchor the membrane in place. Membrane joints are hot-air welded to form a continuous barrier with an air gap around the basement wall. Hydro-Ultra Mat Series, Gard-Drain and Gard Drain BCS panels are placed against the Hydro-Prufe® 80 mil PVC membrane and so located as to transport groundwater away from the foundation wall. These membranes function to keep basements dry as follows:

- The membrane system keeps ground moisture (rainwater) from coming into direct contact with the wall surface.
- The Gard-Drain medium allows groundwater to flow down to the footing level and drain away from the building.
- The Hydro-Ultra Mat geotextile forms an air gap to provide a capillary break, allowing water vapor from the interior space to condense against the membranes.
- The air gap system continues to function despite any future foundation wall shifting or cracking.

Hydro-Prufe® 80 mil PVC membrane has a resistance to hydrostatic pressure of 50 psi (344.7 kPa) over a $^{1}/_{16}$-inch-wide (1.6 mm) crack when installed in accordance with Section 4.0 of this report and tested in accordance with ASTM D5385.

The attributes of the Hydro-Prufe® 80 mil PVC membrane have been verified as conforming to the provisions of ICC 700-2020 Sections 602.1.2 and 11.602.1.2ICC 700-2015 and ICC 700-2012 Section 602.1.2 and ICC 700-2008 Section 602.11 for foundation waterproofing. Note that decisions on compliance for those areas rest with the user of this report. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. These codes or standards often provide supplemental information as guidance.

4.0 INSTALLATION

Installation of the Hydro-Prufe® 80 mil PVC membrane system must comply with this report and the manufacturer's published installation instructions. The manufacturer's published installation instructions must be available at the jobsite at all times during installation.

Substrate walls are to be cured, and free of voids and sharp projections that can damage the Hydro-Prufe® PVC system.

The membrane shall either be secured along the top edge of the foundation wall by metal termination bars or embedded in PVC waterstop or PVC clad metal embedded during concrete placement.

Induction plates shall be fastened to an approved substrate to the satisfaction of the building official. The Induction plates shall be located behind the 80 mil PVC membrane over the Hydro-Ultra Mat geotextile layer, and installed along the foundation wall at 14 inches (356 mm) to 15 inches (381 mm) on center horizontally, and 46 inches (1168 mm) to 48 inches (1298 mm) on center vertically.

Hydro-Prufe® PVC sheets shall drape down the wall and terminate a minimum of 12 inches (305 mm) into perimeter footing. All side and end lap joints shall be hot-air welded in accordance with the manufacturer's instructions. The lap area shall be a minimum of 4 inches (102 mm) wide.

The Hydro-Prufe® 80 mil PVC membrane must be installed with the Hydro-Ultra Mat tight to the foundation. Penetrations through the PVC 80 mil membrane must be sealed and detailed per the manufacturer's recommendations.

5.0 CONDITIONS OF USE:

The Hydro-Prufe® 80 mil PVC membrane system 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 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.

5.3 Hydro-Prufe® 80 mil PVC membrane must be stored out of direct sunlight and at temperatures above -24°F (-31°C) and no greater than 122°F (50°C). Hydro-Prufe® 80 mil PVC membrane system materials must not be installed when temperatures are below -24°F (-31°C).

5.4 Hydro-Prufe® 80 mil PVC membrane system must be backfilled within 30 days of its installation to protect the material from prolonged exposure to ultraviolet radiation (sunlight).

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 2012 and 2009 IBC Section 1805.4 or 2012 and 2009 IRC Section R405, as applicable.

5.6 The membrane is manufactured by Hydro-Gard, LLC, in Yorba Linda, California, with quality control inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

6.1 Data in accordance with portions of the ICC-ES Acceptance Criteria for Rigid Polyethylene, Below-grade, Dampproofing and Wall Waterproofing Material (AC114), dated March 2012 (editorially revised December 2013), and with the PVC water immersion weight change tolerances of the ICC-ES Acceptance Criteria for Walking Decks (AC39).

6.2 Data in accordance with ASTM D5385, Standard Test Method for Hydrostatic Pressure Resistance of Waterproofing Membranes.

7.0 IDENTIFICATION

7.1 Hydro-Prufe® 80 mil PVC membrane and manufacturer-specified system components must be identified by a stamp on the packaging that bears the name Hydro-Gard, LLC, and the product name. The Hydro-Prufe® 80 mil PVC membrane must also be identified with the evaluation report number (ESR-3465).

7.2 The report holder's contact information is the following:

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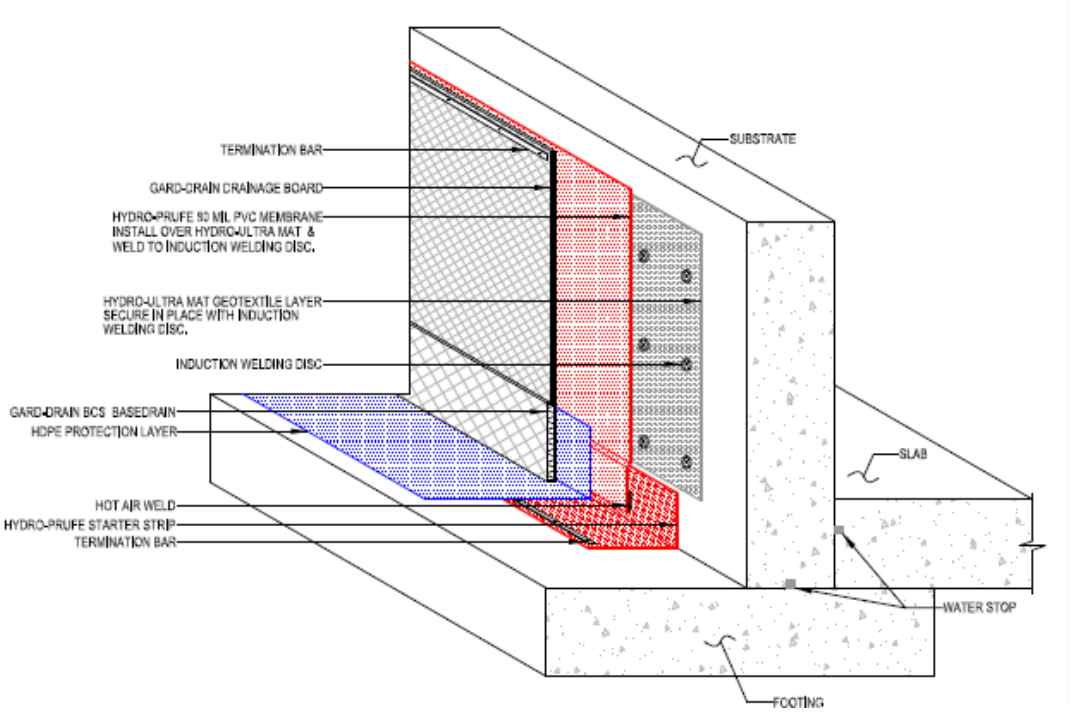

FIGURE 1—TYPICAL MEMBRANE INSTALLATION DETAIL