

ICC-ES Evaluation Report**ESR-2783**

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**DIVISION: 07 00 00—THERMAL AND MOISTURE
PROTECTION****Section: 07 25 00—Water-Resistive Barriers/Weather
Barriers****Section: 07 65 00—Flexible Flashings****REPORT HOLDER:****MFM BUILDING PRODUCTS CORPORATION
POST OFFICE BOX 340
COSHOCKTON, OHIO 43812
www.mfmbp.com****EVALUATION SUBJECT:****SUBSEAL 40 AND SUBSEAL 60 WATER-RESISTIVE
BARRIERS AND FUTUREFLASH™ FLASHING****1.0 EVALUATION SCOPE****Compliance with the following codes:**

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

Properties evaluated:

- Physical properties
- Water resistance

2.0 USES**2.1 SubSeal 40 and SubSeal 60:**

SubSeal 40 and SubSeal 60 is used as a self-adhering water-resistive barrier on exterior walls of buildings of Type V-B construction (IBC), and construction permitted under the IRC. SubSeal 40 and SubSeal 60 are an alternative to the water-resistive barriers specified in IBC Section 1404.2 and IRC Section R703.2. SubSeal 40 is used as a vapor retarder in accordance with IECC Sections 402.5 and 502.5.

2.2 FutureFlash:

FutureFlash is used as a mechanically attached flashing for wall penetrations under IBC Section 1405.3 and IRC Section R703.8.

3.0 DESCRIPTION**3.1 SubSeal 40:**

SubSeal 40 is a self-adhering sheet-type membrane, consisting of a multilayer polyethylene film coated with formulated rubberized asphalt formed to a minimum total thickness of 40 mils [0.04 inch (1.0 mm)]. A silicone-coated release paper protects the adhesive surface, and is

removed prior to installation. The membrane is available in 75-foot-long (22 860 mm) rolls having multiple widths.

3.2 SubSeal 60:

SubSeal 60 is a self-adhering sheet-type membrane, consisting of a multilayer polyethylene film coated with formulated rubberized asphalt formed to a minimum total thickness of 60 mils inch [0.06-inch (1.5 mm)]. A silicone-coated release paper protects the adhesive surface, and is removed prior to installation. The membrane is available in 60-foot-long (18 288 mm) rolls having multiple widths.

3.3 FutureFlash:

FutureFlash is a three-ply, composite sheet-type membrane consisting of a gray-colored, polyethylene, outer-surface film; a rubberized asphalt core; and a polyester inner-surface film. The membrane is nominally 26 mils [0.026-inch (0.66 mm)] thick and is available in 75-foot-long (22 860 mm) rolls having multiple widths.

4.0 INSTALLATION**4.1 SubSeal 40 and SubSeal 60:**

The exterior wall surfaces must be dry and free of dirt, dust or other foreign matter that would inhibit proper adhesion. SubSeal 40 and SubSeal 60 must be applied when the ambient air and surface temperatures are 50°F (10°C) or higher. The membrane is installed horizontally over the substrate in accordance with the applicable code. The membrane must be installed with 3-inch (76 mm) sidelaps and 6-inch (152 mm) headlaps. The membrane must not be installed where Grade D building paper is required by the IBC or IRC, as applicable.

At rough openings for doors and windows, the membranes are installed in accordance with the manufacturer's published installation instructions. The doors and windows must be installed in accordance with the respective manufacturer's published installation instructions and flashed in accordance with the requirements of the applicable code.

Damaged membrane sheets must be replaced or repaired by cutting out the damaged area and applying a patch of new material over the removed area. The patch material must overlap the existing membrane a minimum of 2 inches (51 mm) in all directions.

The membrane has a permeance rating of 1 perm (5.7 x 10⁻¹¹ kg/Pa•s•m²) or less when tested in accordance with ASTM E 96, Procedure A, and is a vapor retarder, as defined in IECC Chapter 2. Therefore, when used as a vapor retarder, the membrane must be installed in accordance with IECC Sections 402.5 and 502.5, as applicable.

4.2 FutureFlash:

FutureFlash must be mechanically attached, in accordance with the manufacturer's published installation instructions, in shingle-fashion, to prevent entry of moisture into the wall cavity or penetration of water to the building structural framing components in accordance with IBC Section 1405.3 or IRC Section R703.8, as applicable.

5.0 CONDITIONS OF USE

The SubSeal 40, SubSeal 60 and FutureFlash™ products 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 SubSeal and FutureFlash must be manufactured, identified and installed in accordance with this report and the manufacturer's published instructions. If there is a conflict between this report and the manufacturer's published instructions, this report governs.
- 5.2 Installation of SubSeal and FutureFlash is limited to buildings of Type V-B construction (IBC) and construction permitted by the IRC.
- 5.3 When used as a vapor retarder, SubSeal 40 and SubSeal 60 must be installed in accordance with IECC Sections 402.5 and Section 502.5, as applicable.
- 5.4 SubSeal 40 and SubSeal 60 must not be installed where Grade D building paper is required under the IBC or IRC, as applicable.

6.0 EVIDENCE SUBMITTED

- 6.1 Data in accordance with the ICC-ES Acceptance Criteria for Water-resistive Barriers (AC38), dated February 2008 (editorially revised December 2007).
- 6.2 Data in accordance with the ICC-ES Acceptance Criteria for Flexible Flashing Materials (AC148), dated June 2006.

7.0 IDENTIFICATION

Each carton is identified with a label bearing the product name (SubSeal or FutureFlash), the production date, the MFM Building Products Corporation name and address, and the evaluation report number (ESR-2783).