

ICC-ES Evaluation Report

ESR-1252

Reissued April 1, 2011

This report is subject to renewal in two years.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 30 05—Roofing Felt and Underlayment

REPORT HOLDER:

TAMKO BUILDING PRODUCTS, INC.
PO BOX 1404
JOPLIN, MISSOURI 64802
(417) 624-6644
www.tamko.com

EVALUATION SUBJECT:

**MOISTURE GUARD PLUS® ICE AND RAIN PROTECTIVE
UNDERLAYMENT AND TW UNDERLAYMENT**

1.0 EVALUATION SCOPE**Compliance with the following codes:**

- 2006 *International Building Code*® (IBC)
- 2006 *International Residential Code*® (IRC)
- BOCA® *National Building Code*/1999 (BNBC)
- 1999 *Standard Building Code*® (SBC)
- 1997 *Uniform Building Code*™ (UBC)

Properties evaluated:

- Severe climate underlayment
- Ice barrier

2.0 USES

Moisture Guard Plus® and TW Underlayment are self-adhering membranes used as an alternate to the ice barrier specified in Chapter 15 of the IBC, BNBC, and SBC, and Chapter 9 of the IRC. Additionally, the membranes are used as an alternate to the underlayment in severe climate areas specified in Tables 15-B-1, 15-B-2, 15-D-1 and 15-D-2 of the UBC.

3.0 DESCRIPTION**3.1 Moisture Guard Plus®:**

A nominal 60-mil-thick [0.060 inch (1.52 mm)], fiberglass-mat-reinforced, SBS modified bitumen membrane with mineral fines on the top surface. The membrane is backed with a release film, to protect the membrane adhesive. The membrane is black in color and is produced in rolls 39³/₈ inches wide (1000 mm) and 30 feet 6 inches (9296 mm), 45 feet 8 inches (13 919 mm), or 61 feet long (18 593 mm).

3.2 TW Underlayment:

A nominal 40-mil-thick [0.040 inch (1.02 mm)], unreinforced asphalt membrane with a polymeric film on the top surface. The membrane is backed with a release film, to protect the membrane adhesive. The membrane is black in color and is produced in rolls 39³/₈ inches wide (1000 mm) by 61 feet long (18 593 mm).

4.0 INSTALLATION

Installation of TAMKO Moisture Guard Plus® and TW Underlayment membranes shall comply with this report and the manufacturer's published installation instructions. The installation instructions shall be available at the jobsite at all times during installation.

Prior to application of the membrane, the deck surface shall be free of frost, dust and dirt, loose nails, and other protrusions. Damaged sheathing shall be replaced. Installation is limited to plywood substrates. The membrane is to be applied only when the ambient air and substrate temperatures are above 35°F (1.7°C).

The membranes may be cut into 10- to 15-foot (3048 to 4572 mm) lengths and rerolled. The release paper is peeled back approximately 1 to 2 feet (305 to 610 mm) and the membrane aligned with the lower edge of the roof and set in place. The remainder of the membrane is applied directly to the roof deck by removing the film and firmly pressing the membrane into place. The end seams shall be overlapped a minimum of 6 inches (152 mm). Edge seams shall be overlapped 2¹/₂ inches (64 mm) for Moisture Guard Plus® and 4 inches (102 mm) for TW Underlayment. The subsequent courses of membrane are applied parallel to the eave, from the lower edge of the roof upwards in a shingle-lap manner. The membrane shall be installed in sufficient courses to extend up the roof the minimum distance prescribed by Chapter 15 of the applicable code (Chapter 9 in the case of the IRC) beyond the interior of the exterior wall.

If the membrane becomes misaligned, the roll is to be cut and restarted. The membrane is pressed firmly into place, from the center to edge. After application, the membrane shall be inspected, and any defects repaired. "Fish mouths" are slit, pressed flat, and covered with a patch of membrane of sufficient width and length to overlap each side and end of the slit a minimum of 3 inches (76 mm). Flashing around protrusions or metal drip edges shall be over the membrane, to prevent water backup.

Installation of the roof covering can proceed immediately

following application of the membrane. The membrane should be covered by an approved roof covering as soon as possible. For reroofing application, the same procedures apply after removal of the existing roof covering and roofing felts to expose the roof deck.

5.0 CONDITIONS OF USE

The TAMKO Moisture Guard Plus[®] and TW Underlayment membranes described in this report comply with, or are suitable alternates to what is specified in, those codes specifically listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 Installation shall comply with this report and the manufacturer's published installation instructions.
- 5.2 Installation shall be limited to use on plywood substrates on structures located in areas where nonclassified (nonrated in the UBC) roof coverings are permitted. Where classified (rated) roof coverings are required, substantiating data shall be provided to the code official for approval.
- 5.3 Installation shall be limited to roofs with a slope of 2:12 (16.67%) or greater.
- 5.4 Installation shall be limited to use with roof coverings that do not involve hot asphalt or coal-tar pitch.
- 5.5 Installation shall be limited to use with roof coverings that are mechanically fastened through the underlayment to the sheathing or rafters.
- 5.6 Installation shall be limited to roofs with ventilated attic spaces.

5.7 The membrane shall be installed only when the ambient air and substrate temperatures are above 35°F (1.7°C).

5.8 The Moisture Guard Plus[®] membrane is manufactured at the TAMKO Building Products plants located in Joplin, Missouri, and Naples, Texas, and the TW Underlayment membrane is manufactured at the Columbus, Kansas, plant, under a quality control program with inspections provided by Underwriters Laboratories Inc. (AA-668).

6.0 EVIDENCE SUBMITTED

- 6.1 Manufacturer's descriptive literature and published installation instructions.
- 6.2 Data in accordance with the ICC-ES Acceptance Criteria for Roof Underlayment for Use in Severe Climate Areas (AC48), dated October 2005 (editorially revised August 2007).
- 6.3 Data in accordance with the ICC-ES Acceptance Criteria for Roof Underlayments (AC188), dated July 2007.
- 6.4 A quality control manual.

7.0 IDENTIFICATION

The TAMKO Moisture Guard Plus[®] and TW Underlayment membranes described in this report shall be identified by a label, on the container of each roll of membrane, bearing the TAMKO Building Products name, the product name, the manufacturing location, the evaluation report number (ESR-1252) and the name and logo of the inspection agency (Underwriters Laboratories Inc.).