



# **ICC-ES Evaluation Report**

**ESR-3464** 

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Reissued 03/2018 This report is subject to renewal 03/2019.

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION SECTION: 07 30 05—ROOFING FELT AND UNDERLAYMENT

#### **REPORT HOLDER:**

## FIRESTONE BUILDING PRODUCTS COMPANY, LLC

250 WEST 96<sup>th</sup> STREET INDIANAPOLIS, INDIANA 46260

#### **EVALUATION SUBJECT:**

**ROOF UNDERLAYMENTS: CLAD-GARD SA-N AND CLAD-GARD SA-S** 



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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:

FIRESTONE BUILDING PRODUCTS COMPANY, LLC 250 WEST 96<sup>TH</sup> STREET INDIANAPOLIS, INDIANA 46260 (317) 575-7000 www.firestonebpco.com

**EVALUATION SUBJECT:** 

ROOF UNDERLAYMENTS: CLAD-GARD SA-N AND CLAD-GARD SA-S

#### 1.0 EVALUATION SCOPE

#### Compliance with the following codes:

- 2012, 2009 and 2006 International Building Code® (IBC)
- 2012, 2009 and 2006 International Residential Code<sup>®</sup> (IRC)
- 2013 Abu Dhabi International Building Code (ADIBC)<sup>†</sup>

<sup>†</sup>The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

#### **Properties evaluated:**

- Physical properties
- Fire classification

#### 2.0 **USES**

CLAD-GARD SA-N and CLAD-GARD SA-S are self-adhering membranes used as alternates to the ASTM D226, Type I and Type II, roofing underlayments specified in IBC Chapter 15 and IRC Chapter 9. The underlayments may also be used as components of classified roofing when installed as described in this report.

#### 3.0 DESCRIPTION

The roofing underlayments are composed of elastomeric modified bitumen blends and other polymers applied to a release sheet. CLAD-GARD SA-S is designed for use as a roof underlayment in high-temperature conditions. The top of the CLAD-GARD SA-N is covered with a high-density polyethylene fabric and the underside is self-adhering with a silicone release film. The underlayments are available in rolls 36 wide (914mm) and 67 feet long (20.4 m), and have a nominal thickness of 40 mils (1.0 mm).

#### 4.0 INSTALLATION

#### 4.1 General:

The underlayments must be applied to a properly prepared, dry, clean substrate free of dust, debris, oils and unadhered coatings. Acceptable substrates for CLAD-GARD SA-N and CLAD-GARD SA-S are plywood and OSB.

Installation of the underlayments must be by removal of the release film and applying the self-adhesive underside to the approved substrate using applied pressure. Starting at the low point of the roof, a full roll or cut roll of the underlayment must be positioned into lengths of 10 to 15 feet (3 to 5 m) and rolled loosely over the substrate, parallel to the eaves in a manner that will allow side laps to shed water. A minimum of 1 to 2 feet (305 to 610 mm) of release film must be peeled back as the underlayment is aligned. The remaining release film needs to be removed as the remainder of the underlayment is applied. The underlayment must then be pressed in place with heavy hand pressure. The underlayment must be installed with edge laps of 3 inches (76 mm) and end laps of 6 inches (152 mm). For valley and ridge applications, after removal of the release film, the sheet needs to be centered over valley or ridge, draped and pressed in place.

Installation of the roof covering can proceed immediately following application of the underlayments. The underlayments must be covered by an approved roof covering within the time set forth in the underlayment report holder's published installation instructions.

For reroofing applications, the existing roofing material needs to be removed and the existing substrate must meet the requirements for new installations as described in this section (Section 4.1).

### 4.2 Ice Barrier:

In areas of the roof required to have an ice barrier under IBC Chapter 15 or IRC Chapter 9, a single layer of self-adhered modified bitumen membrane complying with ASTM D1970 or ICC-ES Acceptance Criteria for Self-Adhered Roof Underlayments for Use as Ice Barriers (AC48) must be installed in sufficient courses such that the ice barrier extends from the eave's edge up the roof for a minimum distance of 24 inches (610 mm) inside the exterior wall line of the building. The roof underlayment, applied in the field of the roof, must overlap the ice barrier.

## 4.3 Flashing:

Flashing must be in accordance with the applicable code. Flashing around protrusions must be over the lower course

of the underlayment and under the upper course of the underlayment, to prevent water backup. When used, metal drip edges must be installed beneath the underlayment at the eaves and over the underlayment at rakes.

#### 4.4 Classified Roofing:

The roofing underlayments may be used as a component of a classified roof assembly consisting of Class A or C glass fiber mat shingles or Class C asphalt organic shingles complying with the applicable code when installed in accordance with this report over a minimum <sup>15</sup>/<sub>32</sub>-inchthick (11.9 mm) plywood deck.

Under the 2012, 2009 and 2006 IBC, CLAD-GARD SA-N and CLAD-GARD SA-S underlayments may be used in Class A roof assemblies that utilize roof covering materials specified in the exceptions to IBC Section 1505.2. Under the 2006 IBC, these underlayments may be used in Class B roof assemblies that include the roof coverings specified in the exception to Section 1505.3.

Under the 2012 and 2009 IRC, CLAD-GARD SA-N and CLAD-GARD SA-S underlayments may be used in Class A roof assemblies that include the roof coverings specified in the exceptions to Section R902.1. Under the 2006 IRC, these underlayments may be used with the Class A roof assemblies that include the roof coverings specified in Section R902.1.

#### 5.0 CONDITIONS OF USE

The underlayments 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 be in accordance with this report, the applicable code and the manufacturer's published installation instructions. In the event of conflicts between the manufacturer's instructions and this report, this report governs. A copy of the manufacturer's installation instructions must be available at the jobsite at all times during installation.

- 5.2 Installation is limited to the substrates recognized for use with each product, as noted in Section 4.1.
- 5.3 Installation is limited to use with roof coverings that are mechanically fastened through the underlayment to the sheathing or rafters.
- 5.4 Installation is limited to roof slopes of 2:12 (17 percent) and greater and where the roof covering does not involve hot asphalt or coal tar pitch.
- 5.5 Installation is limited to roofs ventilated in accordance with the applicable code.
- 5.6 The underlayment is to be installed only when the ambient air and substrate temperatures at the time of installation are above 40°F (5°C).
- 5.7 The CLAD-GARD roofing underlayments are manufactured in Drummondville, Quebec; Chilliwack, British Columbia; Wadsworth, Ohio; and Gulfport, Mississippi, under a quality control program with inspections by ICC-ES.

#### 6.0 EVIDENCE SUBMITTED

- 6.1 Data in accordance with the ICC-ES Acceptance Criteria for Roof Underlayments (AC188), dated February 2012 (editorially revised February 2014).
- 6.2 Class A and Class C roof tests in accordance with UL 790.

#### 7.0 IDENTIFICATION

Each roll of the underlayment described in this report is identified with a stamp bearing the manufacturer's name (Firestone Building Products Company, LLC) and address, the product name, the manufacturing date code, and the evaluation report number (ESR-3464).