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DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION

Section: 07 30 05 – Roofing Felt and Underlayment

REPORT HOLDER:

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REPORT SUBJECT:

Secure Start™ SG and Secure Start™ Plus Mechanically Attached Roofing Underlayments
406 Secure Start HT Self-Adhered Roofing Underlayment

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2024, 2021, and 2018 *International Building Code®* (IBC)
- 2024, 2021, and 2018 *International Residential Code®* (IRC)
- 2023 *Florida Building Code®* (FBC) – Building and Residential including High-Velocity-Hurricane Zones (HVHZ) (See Section 9.1)

NOTE: This report references the most recent Code editions noted. Section numbers in earlier editions may differ.

1.2 Secure Start™ SG, Secure Start™ Plus, and 406 Secure Start HT underlayments have been evaluated for the following properties (see Table 1):

- Physical properties
- Fire classification (Secure Start™ SG and Secure Start™ Plus only)
- Ice barrier

1.3 Secure Start™ SG and Secure Start™ Plus underlayments have been evaluated for the following uses:

- Under the 2024 IBC and IRC, the underlayments may be used in the field of roofs where ASTM D8257-compliant underlayments are required as specified in IBC Chapter 15 and IRC Chapter 9.
- Under the 2021 and 2018 Codes, the underlayments may be used as an alternative to the ASTM D226, Type I and Type II, roofing underlayments specified in IBC Chapter 15 and IRC Chapter 9.
- In areas of the roof required by IBC Section 1507 or IRC Section R905 to have an ice barrier roof underlayment, when installed as noted in Section 4.2 of this report.
- As a component of a classified assembly when installed as described in Section 4.1 of this report.

406 Secure Start HT underlayment has been evaluated for the following uses:

- In areas of the roof required by IBC Section 1507 or IRC Section R905 to have an ice barrier roof underlayment, when installed as noted in Section 4.2 of this report.
- Use in the field of the roof where self-adhering roof underlayments complying with ASTM D1970 are required as specified in Chapter 15 of the IBC, and Chapter 9 of the IRC.

2.0 STATEMENT OF COMPLIANCE

Secure Start™ SG, Secure Start™ Plus, and 406 Secure Start HT underlayments comply with the Codes listed in Section 1.1, for the properties stated in Section 1.2, and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.0.

3.0 DESCRIPTION

3.1 Secure Start™ SG is a mechanically attached synthetic underlayment comprised of a cross-woven polymeric base scrim laminated onto a non-woven scrim or textured embossed non-woven scrim and a polymer coating on the back side. The underlayment has a nominal weight of 2.25 pounds per 100 square feet, and it is available in rolls 48 inches wide by 250 feet long. Custom size of the rolls is also available.



3.2 Secure Start™ Plus is a mechanically attached synthetic underlayment comprised of a cross-woven polymeric base scrim laminated onto a textured embossed non-woven scrim and a polymer coating on the back side. The underlayment has a nominal weight of 3.27 pounds per 100 square feet, and it is available in rolls 48 inches wide by 250 feet long. Custom size of the rolls is also available.

3.3 406 Secure Start HT is a self-adhered roofing underlayment comprised of a polymeric facer layer and a polymer modified bitumen, and a release liner. The product has a nominal thickness of 60 mils and is available in a standard roll size of 36 in. wide by 67 ft. long. Custom lengths and widths of the rolls are available.

4.0 PERFORMANCE CHARACTERISTICS

4.1 Fire Classification: When installed in accordance with the assembly described in Table 2 of this report, Secure Start™ SG and Secure Start™ Plus underlayments meet Class A fire classification per ASTM E108. Additionally, the underlayments may be used as follows:

- As a component of a classified roof assembly when specifically recognized as such in a Listing Report approved by the Code official.
- As an alternative to the underlayment specified in the Code for roof coverings permitted under Exceptions 1 - 4 to IBC Section 1505.2 and Exceptions 1 - 4 to IRC Section R902.1.
- Where non-classified roofing is permitted in IBC Section 1505.5.

4.2 Ice Barrier: In areas of the roof required by IBC Section 1507.1.2 or IRC Section R905.1.2 to have an ice barrier, two layers of Secure Start™ SG or Secure Start™ Plus underlayments solidly cemented together may be used provided the ice barrier extends up the roof a minimum distance of 24 inches inside the exterior wall line of the building.

When 406 Secure Start HT is used as an ice barrier, the membrane is self-adhered to solid-sheathed decks of plywood or OSB substrates after the release liner is removed, and applied from the lower edge of the roof, extending up the roof a distance of 24 inches inside the exterior wall line of the building.

4.3 Vapor Permeability: Secure Start™ SG and Secure Start™ Plus underlayments have a permeance of 0.68 perms, based on testing in accordance with ASTM E96.

5.0 INSTALLATION

5.1 General: Secure Start™ SG and Secure Start™ Plus underlayments must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.

5.2 Application:

5.2.1 Secure Start™ SG and Secure Start™ Plus underlayments may be installed with the roof coverings specified in IBC Table 1507.1.1(1) and IRC Table R905.1.1(1), where ASTM D8257-compliant underlayments are permitted. Secure Start™ SG or Secure Start™ Plus underlayments must be installed in accordance with IBC Table 1507.1.1(2) and IRC Table R905.1.1(2) and fastened in accordance with IBC Table 1507.1.1(3) and IRC Table R905.1.1(3). Secure Start™ SG or Secure Start™ Plus underlayments must be laid with the print side up, with laps as required by the applicable Code, evaluation report, or manufacturer's instructions, whichever is more restrictive.

The roof covering may be installed immediately following the Secure Start™ SG or Secure Start™ Plus underlayments application and the underlayments must be covered within the time designated in the report holder's published installation instructions.

5.2.2 The roof decks of 406 Secure Start HT underlayment must be in proper condition to ensure adhesion. Installation is limited to solid-sheathed decks of plywood and OSB substrates. 406 Secure Start HT underlayment is self-adhered to the substrate after the release liner is removed.

When used as an ice barrier, 406 Secure Start HT underlayment is applied from the lower edge of the roof, extending up the roof a distance of 24 inches inside the exterior wall line of the building.



406 Secure Start HT underlayment must be lapped a minimum of 3 inches on horizontal seams and 6 inches on vertical seams. Flashings around protrusions must be installed under the underlayment.

406 Secure Start HT underlayment may be installed with the roof coverings specified in IBC Table 1507.1.1(1) and IRC Table R905.1.1(1), where ASTM D1970-compliant underlayments are permitted. The underlayments must be installed in accordance with the IBC Table 1507.1.1(2) and IRC Table R905.1.1(2) and fastened in accordance with IBC Table 1507.1.1(3) and IRC Table R905.1.1(3).

The roof covering may be installed immediately following the 406 Secure Start HT underlayment application, and the underlayment must be covered within the time designated in the report holder's published installation instructions.

6.0 CONDITIONS OF USE

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

6.2 Installation of 406 Secure Start HT underlayment is limited to use with approved mechanically attached roof covering systems. Installation with adhered roofing systems is outside the scope for Secure Start™ SG and Secure Start™ Plus in this report.

6.3 Installation of 406 Secure Start HT underlayment is limited to roof systems that do not involve hot asphalt or coal-tar pitch.

6.4 Installation of Secure Start™ SG and Secure Start™ Plus underlayments is limited to roofs with a slope of 2:12 (17%) or greater.

6.5 Attic ventilation must be provided in accordance with the applicable Code since there are no requirements to evaluate vapor permeability of Secure Start™ SG and Secure Start™ Plus underlayments.

6.6 Installation of 406 Secure Start HT underlayment is limited to buildings permitted to have non-classified

roofing in accordance with IBC Section 1505.5, unless the underlayment is specifically recognized as a component of a classified roofing assembly in a listing approved by the Code official.

6.7 Secure Start™ SG, Secure Start™ Plus and 406 Secure Start HT underlayments are manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc.

7.0 SUPPORTING EVIDENCE

7.1 Reports of tests in accordance with ASTM E108 and ASTM D8257 (Secure Start™ SG and Secure Start™ Plus underlayments).

7.2 Data in accordance with ICC-ES Acceptance Criteria for Roof Underlayments (AC188), dated February 2012 (editorially revised December 2015 - Secure Start™ SG and Secure Start™ Plus underlayments, December 2020 - 406 Secure Start HT underlayment).

7.3 Reports of tests in accordance with ASTM D1970 as set forth in ICC-ES Acceptance Criteria for Self-adhered Roof Underlayments for Use as Ice Barriers (AC48), dated February 2012 (editorially revised December 2024). (406 Secure Start HT underlayment)

7.4 Intertek Listing Report titled [Malarkey Synthetic Roofing Underlayments](#), on the Intertek Directory of Building Products.

8.0 IDENTIFICATION

The Secure Start™ SG, Secure Start™ Plus and 406 Secure Start HT underlayments are identified with the manufacturer's name, address and telephone number, the product name, installation instructions, roll dimensions, weight, the Intertek Mark as shown below, and the Code Compliance Research Report number (CCRR-1082).





9.0 FLORIDA BUILDING CODE

9.1 Florida Building Code: Secure Start™ SG, Secure Start™ Plus and 406 Secure Start HT underlayments, described in Sections 2.0 through 8.0 of this Research Report, comply with the 2023 *Florida Building Code – Building* and *Florida Building Code – Residential*, for the editions indicated in Section 1.1 of this report, subject to the following conditions:

9.1.1 For Use Outside HVHZ: Secure Start™ SG and Secure Start™ Plus underlayments may be installed with the roof coverings specified in FBC (Building) Table 1507.1.1.1 and FBC (Residential) Table R905.1.1.1, where ASTM D8257-compliant underlayments are permitted. 406 Secure Start HT The underlayment may be installed with roof coverings specified in FBC (Building) Section 1507.1.1 and FBC (Residential) Section R905.1.1, where ASTM D1970-compliant underlayments are permitted. The underlayments must be installed in accordance with the provisions of FBC (Building) Section 1507 and FBC (Residential) R905.

When Secure Start™ SG and Secure Start™ Plus underlayments are installed as described in Table 2 of this report, the roofing assembly meets Class A fire classification per ASTM E108. Additionally, the Secure Start™ SG and Secure Start™ Plus underlayments may be used as follows:

- As a component of a classified roof assembly when specifically recognized as such in a Listing Report approved by the Code official.
- As an alternative to the underlayment specified in the Code for roof coverings permitted under Exceptions 1 - 4 to FBC (Building) Section 1505.2 and Exceptions 1 - 4 to FBC (Residential) Section R902.1.
- Where non-classified roofing is permitted in FBC (Building) Section 1505.5.

9.1.2 For Use Inside HVHZ: Secure Start™ SG and Secure Start™ Plus underlayments may be installed with the roof coverings specified in FBC (Building) Section 1518, where ASTM D8257-compliant underlayments are permitted.

406 Secure Start HT underlayment may be installed with the roof coverings specified in FBC (Building) Section 1518, where ASTM D1970-compliant underlayments are permitted. The underlayment must be installed in accordance with the provisions of FBC (Building) Section 1518. Evaluation for use with discontinuous roof tile systems in HVHZ is outside the scope of this report.

When installed as described in Table 2 of this report, the roofing assembly may be used where Class A fire classification is required in FBC (Building) Section 1516.2.1. Additionally, Secure Start™ SG, Secure Start™ Plus and 406 Secure Start HT underlayments may be used with roof coverings permitted under the Exception to FBC (Building) Section 1516.2.1.

Intertek is an approved evaluation entity and quality assurance entity pursuant to Florida Statute 553.842 – Product Evaluation and Approval.

10.0 CODE COMPLIANCE RESEARCH REPORT USE

10.1 Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

10.2 Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

10.3 Reference to the <https://bpdirectory.intertek.com> is recommended to ascertain the current version and status of this report.

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TABLE 1 – PROPERTIES EVALUATED

PROPERTY	2024 IBC SECTION ¹	2024 IRC SECTION ¹	2023 FBC (BUILDING) ¹	2023 FBC (RESIDENTIAL) ¹
Physical Properties	1506 and 1507	R904 and R905	1507, 1518.2, 1515.1.4	R904 and R905
Ice Barrier	1507.1.2	R905.1.2	N/A	N/A
Fire Classification	1505	R902.1	1505 1516.2	R902

¹ Section numbers may be different for earlier versions of the International and Florida Codes

TABLE 2 – FIRE CLASSIFICATION

Classification and Slope	Deck	Underlayment	Roof Covering
Class A 2:12 or greater	Minimum nominal 3/8 in. thick code compliant exterior grade plywood	A single layer of Secure Start™ SG or Secure Start™ Plus underlayment mechanically fastened to the plywood every 18" oc using T50 staples.	Asphalt shingles Listed per ASTM D3462 with a minimum weight of 180 pounds per 100 square feet installed per manufacturer's installation instructions.