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DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION

Section: 07 30 05 – Roofing Felt and Underlayment

REPORT HOLDER:

HomeGuard Building Products, Inc.
5430 Shawland Road
Jacksonville, FL 32254
www.hgbbp.com

REPORT SUBJECT:

ToughSkin® 20 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 Codes, including High-Velocity-Hurricane Zones (HVHZ) (see Section 9)

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

1.2 ToughSkin® 20 roofing underlayment has been evaluated for the following properties (see Table 1):

- Physical properties
- Fire classification
- Ice barrier

1.3 ToughSkin® 20 roofing underlayment has been evaluated for the following uses (see Table 1):

- Under the 2024 IBC and IRC, the underlayment 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 underlayment 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 as described 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.

2.0 STATEMENT OF COMPLIANCE

ToughSkin® 20 roofing underlayment complies 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.

3.0 DESCRIPTION

3.1 ToughSkin® 20 Roofing Underlayment: Mechanically attached synthetic underlayment comprised of a woven scrim coated on both sides with a non-woven scrim on the exposed side. The underlayment is grey in color on both exposed and sheathing side and has an overall weight of 2.1 pounds per 100 square feet. The underlayment is available in rolls of 48 inches wide by 250 feet long.

4.0 PERFORMANCE CHARACTERISTICS

4.1 Fire Classification: When installed in accordance with the assembly described in Table 2 of this report, the roofing underlayment meets Class A fire classification per ASTM E108. Additionally, the underlayment 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 the roofing underlayment 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.

4.3 Vapor Permeability: ToughSkin® 20 roofing underlayment has a permeance of 0.01 perms, based on testing in accordance with ASTM E96.

5.0 INSTALLATION

5.1 General:

ToughSkin® 20 roofing underlayment 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.

The 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 D8257-compliant underlayments are permitted. The underlayment 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). The underlayment 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 underlayment application and the underlayment must be covered within the time designated in the company name'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, this report governs.

6.2 Installation of underlayment with adhered roofing systems is outside the scope of this report.

6.3 Installation is limited to roofs with a slope of 2:12 (17%) or greater.

Attic ventilation must be provided in accordance with the applicable Code.

6.4 The ToughSkin® 20 roofing underlayment is 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 D8257 and ASTM E108.

7.2 Data in accordance with the Data in accordance with ICC-ES Acceptance Criteria for Roof Underlayments (AC188), dated February 2012 (editorially revised December 2015).

7.3 Intertek Listing Report "[HomeGuard - Synthetic Roofing Underlayment](#)", on the [Intertek Directory of Building Products](#).

8.0 IDENTIFICATION

The ToughSkin® 20 roofing underlayment is identified with the manufacturer's name (HomeGuard), the product name (ToughSkin® 20), the Intertek Mark as shown below, the Intertek Control Number and the Code Compliance Research Report number (CCRR-1069).



9.0 OTHER CODES

9.1 FLORIDA BUILDING CODE

The ToughSkin® 20 roofing underlayment, described in Sections 2.0 through 7.0 of this Research Report, complies with the *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, the underlayment 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. The underlayment must be installed in accordance with the provisions of FBC (Building) Section 1507 and FBC (Residential) R905.

When installed as described in Table 2 of this report, the roofing assembly meets Class A fire classification per ASTM E108. Additionally, the underlayment 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 1505.5As

9.1.2 For use inside HVHZ, the underlayment 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. The underlayment must be installed in accordance with the provisions of FBC (Building) Section 1507 and FBC (Residential) R905.

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, the underlayment 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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545 E. Algonquin Road • Arlington Heights • Illinois • 60005
intertek.com/building





TABLE 1 - PROPERTIES EVALUATED

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

¹Section numbers pertain to the most recent edition cited in Section 1.1 of this Report

TABLE 2 – FIRE CLASSIFICATION

Classification and Slope	Deck	Underlayment	Roof Covering
Class A 2:12 or greater	Minimum nominal 5/8" thick Code Compliant exterior grade plywood	A single layer of ToughSkin® 20 underlayment mechanically fastened every 12" oc along the top, bottom and side laps, and 24" oc along two rows staggered and spaced 1/3 and 2/3 up into the field using plastic cap nails.	Asphalt shingles Listed per ASTM D3462 with a minimum weight of 190 pounds per 100 square feet installed per manufacturer's installation instructions.