

Code Compliance Research Report CCRR-0432

Issue Date: 09-22-2021 Revision Date: 01-06-2025 Renewal Date: 01-31-2026

DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION Section: 07 30 05 – Roofing Felt and Underlayment

REPORT HOLDER: Starwrap Inc. 7324 Southwest Fwy, Ste 1440, Houston, TX 77074

www.starwrapinc.com

REPORT SUBJECT:

Starwrap[™] Superior⁺ and Starwrap[™] Diamond⁺ Synthetic Roofing Underlayments

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) (including HVHZ)
- **1.2** Starwrap[™] Superior⁺ and Starwrap[™] Diamond⁺ Synthetic Roofing Underlayments have been evaluated for the following properties (see Table 1):
- Physical properties
- Ice barrier
- **1.3** Starwrap[™] Superior⁺ and Starwrap[™] Diamond⁺ Synthetic Roofing Underlayments have been evaluated for the following uses:
- Under the 2024 IBC and IRC, the underlayment may be used in the field or 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 4.1 of this report.
- Use is limited to buildings permitted to have nonclassified roofing in accordance with IBC Section 1505.5

2.0 STATEMENT OF COMPLIANCE

Starwrap™ Superior⁺ and Starwrap™ Diamond⁺ Synthetic Roofing 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

Starwrap™ Superior⁺ is a four-layered roofing underlayment consisting of a non-woven polypropylene scrim bonded to a woven polypropylene scrim and coated on both sides. The synthetic roofing underlayment has a nominal weight of 2.0 lbs/100ft² and is available in black color. The synthetic roofing underlayment is available in roll widths up to 4 feet at varying lengths.

Starwrap™ Diamond⁺ is a four-layered roofing underlayment consisting of a non-woven polypropylene scrim bonded to a woven polypropylene scrim and coated on both sides. The synthetic roofing underlayment has a nominal weight of 2.9 lbs/100ft² and is available in grey color. The synthetic roofing underlayment is available in roll widths up to 4 feet at varying lengths.

4.0 PERFORMANCE CHARACTERISTICS

- **4.1** 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.
 - **4.2 Vapor Permeability:** Starwrap[™] Superior⁺ and Starwrap[™] Diamond⁺ Synthetic Roofing Underlayments have a permeance of 0.17 perms, based on testing in accordance with ASTM E96.

5.0 INSTALLATION

5.1 General:







Starwrap™ Superior* and Starwrap™ Diamond* Synthetic Roofing 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.

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 is limited to use with approved mechanically attached roof covering systems.
- **6.3** Installation is limited to roof systems that do not involve hot asphalt or coal-tar pitch.
- **6.4** Installation is limited to roofs with 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 the underlayment.
- **6.6** The underlayments are 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 The underlayments are manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc.

Page 2 of 4

7.0 SUPPORTING EVIDENCE

- **7.1** Data in accordance with the ICC-ES Acceptance Criteria for Roof Underlayment (AC188), dated February 2012 (editorially revised December 2015).
- 7.2 Reports of tests in accordance with ASTM D8257.
- **7.3** Intertek Listing Report "Starwrap Inc. Starwrap™ Superior⁺ and Starwrap™ Diamond⁺ Synthetic Roofing Underlayments", on the Intertek Directory of Building Products.

8.0 IDENTIFICATION

The roofing underlayments are identified with the manufacturer's name, address and telephone number, the product name (Starwrap Superior⁺ and Starwrap Diamond⁺), the Intertek Mark as shown below, and the Code Compliance Research Report number (CCRR-0432).



9.0 OTHER CODES

9.1 FLORIDA BUILDING CODE

Starwrap™ Superior* and Starwrap™ Diamond* Synthetic Roofing Underlayments, as 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.







9.1.2 For use inside HVHZ, the underlayment may be installed with the roof coverings specified in FBC (Building) Table 1518.2.1, where ASTM D8257-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

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.







TABLE 1 - PROPERTIES EVALUATED

PROPERTY	2024 IBC SECTION ¹	2024 IRC SECTION ¹	2023 FBC - Building	2023 FBC - Residential
Physical Properties	1506 and 1507	R904 and R905	1507 and 1518.2	R904 and R905
Ice Barrier	1507.1.2	R905.1.2	N/A	N/A

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

This Code Compliance Research Report ("Report") is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Report. Only the Client is authorized to permit copying or distribution of this Report and then only in its entirety, and the Client shall not use the Report in a misleading manner. Client further agrees and understands that reliance upon the Report is limited to the representations made therein. The Report is not an endorsement or recommendation for use of the subject and/or product described herein. This Report is not the Intertek Listing Report covering the subject product and utilized for Intertek Certification and this Report does not represent authorization for the use of any Intertek certification marks. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.



