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

REPORT HOLDER:
Epilay Inc.
21175 S. Main Street, E1 Unit C
Carson, California 90745
<http://www.epilay.com>

REPORT SUBJECT:
Epilay PlasFelt, Superior, Ultra, Platinum, RU-80, and RU-90
Roofing Underlayments

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2024, 2021, 2018 *International Building Code*® (IBC)
- 2024, 2021, 2018 *International Residential Code*® (IRC)
- 2023 *Florida Building Code* (FBC)

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

1.2 Roofing Underlayments have been evaluated for the following properties (see Table 1):

- Physical properties
- Fire classification
- Ice barrier

1.3 Roofing Underlayments have 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

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.

2.1 2024 IBC and IRC Evaluation Reports

The Intertek CCRR is an *Evaluation Report* for approval of an alternate material, design, or method of construction in accordance with Section 104.2.3.6.1 of the 2024 IBC and Section R104.2.2.6.1 of the 2024 IRC.

3.0 DESCRIPTION

Epilay PlasFelt, Superior, Ultra, and Platinum are four-layered roofing underlayments consisting of a non-woven polypropylene scrim bonded to a woven polypropylene scrim and coated on both sides. The nominal weights of the Epilay Superior, Ultra, and Platinum underlayments are 2.05, 2.25, 2.90, and 3.70 pounds per 100 square feet respectively. Standard size rolls are 4 feet wide by 250 feet long.

Epilay RU-80 is a two-layered synthetic roofing underlayment consisting of cross-woven polypropylene base scrim with coating on the exposure side. The underlayment is black in color with a nominal weight of 1.64 pounds per 100 square feet. It is available in rolls measuring 4 ft. and 8 ft. wide by 250 ft. long.

Epilay RU-90 is a three-layered synthetic roofing underlayment consisting of cross-woven polypropylene base scrim with coating on both sides. The underlayment is black in color with a nominal weight of 1.84 pounds per 100 square feet. It is available in rolls measuring 4 ft. and 8 ft. wide by 250 ft. 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. **INSTALLATION General:** 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 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:

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

6.3 Installation is limited to use with approved mechanically attached roof covering systems.

6.4 Installation is limited to installations where the roof covering does not involve hot asphalt or coal-tar pitch.

6.5 Installation is limited to roof slopes of 2:12 (17%) or greater.

6.6 Attic ventilation must be provided in accordance with the applicable Code since there are no requirements to evaluate vapor permeability of the underlayment.

6.7 Installation for fire classification is limited to wood structural panels having a minimum thickness described in Table 2 of this report.

6.8 PlasFelt, Superior, Ultra, Platinum, RU-80, and RU-90 roofing 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 D4533, ASTM D5035, and ASTM E108 (UL 790).

7.2 Reports of tests in accordance with ASTM D8257.

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

7.4 Intertek Listing Report ["Epilay - PlasFelt, Superior, Ultra, Platinum, RU-80, and RU-90 Roofing Underlayments"](#).





8.0 IDENTIFICATION

The roof underlayments are marked at 24 inch intervals with the product name (PlasFelt, Superior, Ultra, Platinum, RU-80, or RU-90). Each roll of the product is labeled with the report holder's name, the product name, the manufacturing date code, and the Code Compliance Research Report number (CCRR-1004).



9.0 OTHER CODES

9.1 The Epilay PlasFelt, Superior, Ultra, Platinum, RU-80, and RU-90 underlayments, described in Sections 2.0 through 7.0 of this Research Report, comply 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 1505.5.

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.

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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TABLE 1 – PROPERTIES EVALUATED

PROPERTY	APPLICABLE CODE SECTIONS ¹			
	2024 IBC	2024 IRC	2023 FBC (BUILDING)	2023 FBC (RESIDENTIAL)
Physical Properties	104.11, 1506, and 1507	R104.11, R904, and R905	1507, and 1518.2	R904 and R905
Fire Classification	1505	R902.1	1505	R902
Ice Barrier	1507	R905	N/A	N/A

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

TABLE 2 – FIRE CLASSIFICATION

CLASSIFICATION AND SLOPE	DECK	UNDERLAYMENT	ROOF COVERING
Class A 2:12 or greater	Minimum nominal 15/32 inch thick Code-compliant exterior grade plywood	One layer of Epilay Superior, Ultra, or Platinum roofing underlayment mechanically fastened to the plywood sheathing every 12 in. on center in the field and every 8 in. on center on the perimeter using 1 in. plastic cap nails	Asphalt shingles Listed per ASTM D3462 with a minimum weight of 190 pounds per 100 square feet
Class A 2:12 or greater	Minimum nominal 15/32 inch thick Code-compliant exterior grade plywood	One layer of Epilay PlasFelt roofing underlayment mechanically fastened to the plywood sheathing every 14 in. on center in the field and every 6 in. on center on the perimeter using 1 in. plastic cap nails	Asphalt shingles Listed per ASTM D3462 with a minimum weight of 190 pounds per 100 square feet
Class A 2:12 or greater	Minimum 1/4 inch thick DensDeck installed over minimum nominal 3/8 inch thick Code-compliant exterior grade plywood	One layer of Epilay PlasFelt, Superior, Ultra, or Platinum roofing underlayment mechanically fastened every 6 in. on center using 1 in. plastic cap nails	Minimum 29 GA Code-compliant steel roof covering (any profile), installed per manufacturer's installation instructions and the Code. The roof covering must be recognized in a Listing Report for Class A Spread of Flame per ASTM E108 requirements.
Class A 2:12 or greater	Minimum nominal 3/8 inch thick Code-compliant exterior grade plywood	One layer of RU-80 or RU-90 roofing underlayment mechanically fastened every 12 in. on center using 1 in. plastic cap nails	Asphalt shingles Listed per ASTM D3462 with a minimum weight of 190 pounds per 100 square feet
Class A 2:12 or greater	Minimum nominal 5/8 inch thick Code-compliant exterior grade plywood	One layer of Epilay Superior, Ultra, or Platinum roofing underlayment mechanically fastened every 5 in. on center around the perimeter and 19 in. on center in the field using 1-1/4 in. plastic cap nails.	Concrete roof tile meeting Class A fire classification with a minimum weight of 10.3 pounds per square foot ¹ . The roof covering must be recognized in a Listing Report for Class A Spread of Flame per ASTM E108 requirements.

¹Concrete tile must comply with IBC Section 1507.3 or IRC Section R905.3, as applicable

