Code Compliance Research Report
CCRR-1004

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Renewal Date: 01-31-2025

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

ADDITIONAL LISTEE:
Building Products of Canada Corporation
9500 St. Patrick Street
Lasalle, Quebec H8R 1R9

ADDITIONAL LISTEE SUBJECT:
SUREDECK Roofing Underlayment

1.0 SCOPE OF EVALUATION

This Research Report addresses compliance with the following Codes:

- 2021, 2018, and 2015 *International Building Code*® (IBC)
- 2021, 2018, and 2015 *International Residential Code*® (IRC)
- 2023 and 2020 *Florida Building Code* (FBC)

2.0 USES

Epilay PlasFelt, Superior, Ultra, Platinum, RU-80, and RU-90 roofing underlayments are used in the field of the roof as an alternative to the ASTM D226, Type I and Type II, roof underlayments specified in Chapter 15 of the IBC and Chapter 9 of the IRC.

The underlayments may be used 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.

The underlayments may be used as components of classified assemblies when installed as described in this report.

The underlayments have been evaluated for the properties as listed in Table 1.

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.

Epilay Superior underlayment is also labeled for Building Products of Canada Corporation as SUREDECK underlayment.

4.0 INSTALLATION

4.1 General:

Installation of the underlayments must comply with the applicable Code, this report, and the report holder's published installation instructions.

The underlayments must be installed in accordance with the subsections of IBC Section 1507 and IRC Section R905 applicable to the roof covering being installed. The 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 underlayment application and the underlayment must be covered within the time designated in the report holder's published installation instructions.

4.2 Ice Barrier:

In areas of the roof required by IBC Section 1507 or IRC Section R905 to have an ice barrier, two layers of the underlayments solidly cemented together with a low solvent based roofing cement, complying with ASTM D4586 Type 1, may be used provided the ice barrier extends up the roof a minimum distance of 24 inches inside the interior wall line of the building. The underlayments installed in the field of the roof must overlap the ice barrier.

4.3 Fire Classification:

The roof underlayments may be used as a component of a classified roof assembly when specifically recognized as such in a listing approved by the Code official. The underlayments may also be used as an alternative to the underlayments specified in the Code for roof coverings permitted under the Exceptions to IBC Section 1505.2 and IRC Section R902.1 and may be used where non-classified roofing is permitted in IBC Section 1505.5. Except in buildings permitted to have non-classified roofing, the roof deck must be wood structural panels having a minimum thickness described in Table 2 of this report.

In addition, when installed in accordance with the assemblies described in Table 2 of this report, Epilay PlasFelt, Superior, Ultra, Platinum, RU-80, and RU-90 roofing underlayments meet Class A fire classification.

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 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.

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

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

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

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

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

5.7 PlasFelt, Superior, Ultra, Platinum, RU-80, RU-90, and SUREDECK roofing underlayments are manufactured under a quality control program with inspections by Intertek Testing Services NA Inc.

6.0 SUPPORTING EVIDENCE

6.1 Reports of tests in accordance with ASTM D4533, ASTM D5035, and ASTM E108 (UL 790).

6.2 Reports of tests in accordance with ASTM D8257 for PlasFelt, Superior, Ultra, and Platinum underlayments.

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

6.4 Intertek Listing Report "Epilay - PlasFelt, Superior, Ultra, Platinum, RU-80, and RU-90 Roofing Underlayments".

6.5 Intertek Listing Report "Building Products of Canada - SUREDECK Underlayment".

7.0 IDENTIFICATION

The roof underlayments are marked at 24 inch intervals with the product name (PlasFelt, Superior, Ultra, Platinum, RU-80, RU-90, or SUREDECK). 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).

8.0 OTHER CODES

8.1 Florida Building Code:

8.1.1 Scope of the Evaluation: Epilay PlasFelt, Superior, Ultra, and Platinum underlayments were evaluated for compliance with the 2023 *Florida Building Code – Building* and the 2023 *Florida Building Code – Residential*.

RU-80 and RU-90 underlayments were evaluated for compliance with the 2020 *Florida Building Code – Building* and the 2020 *Florida Building Code – Residential*.

8.1.2 Conclusion: The PlasFelt, Superior, Ultra, Platinum underlayments described in Section 2.0 to 7.0 of this report comply with the 2023 *Florida Building Code – Building* and the 2023 *Florida Building Code – Residential*, including High-velocity Hurricane Zones (HVHZ), subject to the following conditions:

- The underlayments must be installed in accordance with the provisions noted in Section 2.0 through 7.0 of this report, and Sections 1507 and 1518 of the *Florida Building Code – Building*, and Section R905 of the *Florida Building Code – Residential*
- Evaluation for use with discontinuous roof tile systems is outside the scope of this report

The RU-80 and RU-90 underlayments described in Section 2.0 to 7.0 of this report comply with the 2020 *Florida Building Code – Building* and the 2020 *Florida Building Code – Residential*, including High-velocity Hurricane Zones (HVHZ), subject to the following conditions:

- The underlayments must be installed in accordance with the provisions noted in Section 2.0 through 7.0 of this report, and Sections 1507 and 1518 of the *Florida Building Code – Building*, and Section R905 of the *Florida Building Code – Residential*
- Evaluation for use with discontinuous roof tile systems is outside the scope of this report

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

9.0 CODE COMPLIANCE RESEARCH REPORT USE

9.1 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.

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

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

TABLE 1 – PROPERTIES EVALUATED

PROPERTY	2021 IBC SECTION	2021 IRC SECTION	2023 FBC (BUILDING) SECTION	2023 FBC (RESIDENTIAL) SECTION
Physical Properties	104.11, 1506, and 1507	R104.11, R904, and R905	104.11, 1507, and 1518.2	R904 and R905
Fire Classification	1505	R902.1	1505	R902
Ice Barrier	1507	R905	N/A	N/A

Note: Section numbers may be different for earlier versions of the 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 feet[1]. The roof covering must be recognized in a Listing Report for Class A Spread of Flame per ASTM E108 requirements.

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