

# Code Compliance Research Report CCRR-1105

Issue Date: 01-26-2018 Revision Date: 09-22-2025 Renewal Date: 01-31-2026

**DIVISION: 07 00 00 – THERMAL AND MOISTURE** 

**PROTECTION** 

Section: 07 30 05 - Roofing Felt and Underlayment

**REPORT HOLDER:** 

Intertape Polymer Inc. 50 Abbey Avenue Truro, N.S B2N 6W4 Canada 1-800-565-2000 www.itape.com

### **REPORT SUBJECT:**

NovaSeal Pro, NovaSeal Prime, NovaSeal Elite, NovaSeal Ultra, Palisade, and Palisade SA-HT Synthetic Roofing Underlayments

**ADDITIONAL LISTEE:** 

Kratos Building Products 12901 Nicholson Road, Suite 330 Farmers Branch, TX 75234 www.kratosbp.com

**ADDITIONAL LISTEE SUBJECT:** 

**Kratos Synthetic Roofing Underlayment** 

**ADDITIONAL LISTEE:** 

Klaus Roofing Systems
29 Northridge Drive
Windham, CT 06256
www.klausroofingsystems.com

ADDITIONAL LISTEE SUBJECT:

**Velora One Roof Underlayment** 

ADDITIONAL LISTEE:

Taylor Metal Products 4566 Ridge Drive NE, Salem, OR 97301

www.taylormetal.com

Version: 11 November 2021

ADDITIONAL LISTEE SUBJECT: TMP SAM-HT Underlayment

## 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) 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** The underlayments have been evaluated for the following properties (see Table 1):
- Physical properties
- Ice barrier
- Fire classification
- **1.3** The NovaSeal Pro, NovaSeal Prime, NovaSeal Elite, NovaSeal Ultra, and Palisade underlayments have been evaluated for the following uses (see Table 1):
- Under the 2024 IBC and IRC, the underlayments may be used in the field of roofs where ASTM D8257compliant 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, roof 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
- As a component of a classified assembly when installed as noted in Section 4.1 of this report
- **1.4** Palisade SA-HT underlayment has been evaluated for the following uses (see Table 1):
- Use in the field of the roof where ASTM D1970compliant self-adhering roof underlayments are required as specified in IBC Chapter 15 and IRC Chapter 9







- Use 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
- Use as a component of classified assemblies when installed as described Section 4.1

## 2.0 STATEMENT OF COMPLIANCE

NovaSeal Pro, NovaSeal Prime, NovaSeal Elite, NovaSeal Ultra, Palisade, and Palisade SA-HT 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 and 1.4, when installed as described in this report, including the Conditions of Use stated in Section 6.0.

#### 3.0 DESCRIPTION

- **3.1 NovaSeal Pro Synthetic Roofing Underlayment:** NovaSeal Pro is a mechanically attached, synthetic roofing underlayment consisting of a non-woven polypropylene top scrim laminated to a central woven polypropylene scrim with polymeric coating on the sheathing side. The underlayment has a nominal weight of 1.76 pounds per 100 square feet. The underlayment roll size varies.
- **3.2** NovaSeal Prime Synthetic Roofing Underlayment: NovaSeal Prime is a mechanically attached, synthetic roofing underlayment consisting of a non-woven polypropylene top scrim laminated to a central woven polypropylene scrim with polymeric coating on the sheathing side. The underlayment has a nominal weight of 2.1 pounds per 100 square feet. The underlayment roll size varies.

NovaSeal Prime is also labeled as Kratos Synthetic Roofing Underlayment.

**3.3 NovaSeal Elite Synthetic Roofing Underlayment:** NovaSeal Elite is a mechanically attached, synthetic roofing underlayment consisting of a non-woven polypropylene top scrim laminated to a central woven polypropylene scrim with a polymeric coating on the sheathing side. The underlayment has a nominal weight of 2.8 pounds per 100 square feet. The underlayment roll size varies.

**3.4 NovaSeal Ultra Synthetic Roofing Underlayment:** NovaSeal Ultra is a mechanically attached, synthetic roofing underlayment consisting of a non-woven polypropylene top scrim laminated to a central woven polypropylene scrim with a polymeric coating on the sheathing side. The underlayment has a nominal weight of 3.4 pounds per 100 square feet. The underlayment roll size varies.

NovaSeal Ultra is also labeled as Velora One Roof Underlayment.

- **3.5 Palisade Synthetic Roofing Underlayment:** Palisade is a four-layered mechanically attached, synthetic roofing underlayment consisting of a coating layer on the sheathing side, polypropylene woven fabric, LDPE lamination layer, and a PEV dotted non-woven fabric on the exposed side. The underlayment has a nominal weight of 3.2 pounds per 100 square feet.
- **3.6 Palisade SA-HT Synthetic Roofing Underlayment:** Palisade SA-HT is a self-adhered underlayment consisting of a woven facer, adhesive compound, and a release liner. It is available in 36 in. width by 66.7 length with a nominal weight of 18 lbs per 100 sq.ft. The exposed face is blue in color.

Palisade SA-HT is also labeled as TMP SAM-HT Underlayment.

# 4.0 PERFORMANCE CHARACTERISTICS

- **4.1 Fire Classification:** When installed in accordance with the assembly described in Table 2 of this report, the Novaseal Pro, NovaSeal Prime, NovaSeal Elite, NovaSeal Ultra, Palisade, and Palisade SA-HT roofing underlayments meet 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:

Mechanically Attached Roofing Underlayments: 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.

**Self-Adhered Roofing Underlayment:** When used as an ice barrier, the membrane 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.

**4.3 Vapor Permeability:** NovaSeal and Palisade underlayments have permeances of 0.1 and 0.12 perms, respectively, based on testing in accordance with ASTM E96.

# 5.0 INSTALLATION

**5.1 General:** NovaSeal Pro, NovaSeal Prime, NovaSeal Elite, NovaSeal Ultra, Palisade, and Palisade SA-HT 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 roof deck must be in proper condition to ensure adhesion. Installation is limited to solid-sheathed decks of plywood substrates. The membrane is self-adhered to the substrate after the release liner is removed.

The membrane 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.

The 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 D1970-compliant underlayments are permitted. The 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).

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 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, 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 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 the underlayment.
- **6.6** The 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 D8257 and ASTM E108 for NovaSeal Pro, NovaSeal Prime, NovaSeal Elite, NovaSeal Ultra, and Palisade underlayments.
- **7.2** Reports of tests in accordance with ASTM D1970 and ASTM E108 for Palisade SA-HT underlayment.
- **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 "Intertape NovaSeal Pro, NovaSeal Prime, NovaSeal Elite, NovaSeal Ultra, Palisade, and Palisade SA-HT Roofing Underlayments", on the Intertek Directory of Building Products.
- 7.5 Intertek Listing Report "Kratos Synthetic Roofing Underlayment" on the Intertek Directory of Building Products.
- **7.6** Intertek Listing Report "Velora One Roof Underlayment" on the Intertek Directory of Building Products.
- 7.7 Intertek Listing Report "Taylor Metal Products TMP SAM-HT Self-Adhered Underlayment" on the Intertek **Directory of Building Products.**

## 8.0 IDENTIFICATION

The underlayments are identified with the manufacturer's name, address and telephone number, the product name, the Intertek Mark as shown below, and the Code Compliance Research Report number (CCRR-1105).



# 9.0 OTHER CODES

- 9.1 Florida Building Code: The NovaSeal Pro, NovaSeal Prime, NovaSeal Elite, NovaSeal Ultra, Palisade, and Palisade SA-HT 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 NovaSeal Pro, NovaSeal Prime, NovaSeal Elite, NovaSeal Ultra, and Palisade 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 D8257compliant underlayments are permitted. The Palisade SA-HT underlayment may be installed with the roof coverings specified in FBC (Building) Section 1507.1.1.1

and FBC (Residential) Section R905.1.1.1, 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 installed as described in Table 2 of this report, the roofing assembly meets 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 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 NovaSeal Pro, NovaSeal Prime, NovaSeal Elite, NovaSeal Ultra, and Palisade underlayments may be installed with the roof coverings specified in FBC (Building) Table 1518.2.1, where ASTM D8257-compliant underlayments are permitted. The Palisade SA-HT underlayment may be installed with the roof coverings specified in FBC (Building) Section 1518, where ASTM D1970-compliant underlayments are permitted. The Palisade SA-HT underlayment may additionally be used where underlayments complying with TAS 103 are permitted in TAS 110, as referenced in FBC (Building) Section 1515.1.4. The underlayments 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 <a href="https://bpdirectory.intertek.com">https://bpdirectory.intertek.com</a> is recommended to ascertain the current version and status of this report.

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.







# **TABLE 1 – PROPERTIES EVALUATED**

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

 $<sup>^{\</sup>mathrm{1}}$  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	A minimum nominal 3/8 in. thick Code Compliant exterior grade plywood	A single layer of NovaSeal Prime, NovaSeal Elite, or NovaSeal Ultra roofing underlayment mechanically fastened to the plywood every 12 in. oc in the field and 6 in. oc on the perimeter 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
Class A 2:12 or greater	A minimum nominal 3/8 in. thick AC Grade exterior grade plywood	A single layer of Palisade roofing underlayment mechanically fastened to the plywood every 12 in. oc in the field and 6 in. oc on the perimeter using plastic cap nails, and 4 in. overlap on horizontal joints	Asphalt shingles Listed per ASTM D3462 with a minimum weight of 180 pounds per 100 square feet installed per manufacturer's installation instructions
Class A 2:12 or greater	A minimum nominal 3/8 in. thick AC Grade exterior grade plywood	A single layer of Palisade SA-HT roofing underlayment installed using the products peel and stick backing	Asphalt shingles Listed per ASTM D3462 with a minimum weight of 190 pounds per 100 square feet installed per manufacturer's installation instructions
Class A 2:12 or greater	A minimum nominal 3/8 in. thick AC Grade exterior grade plywood	A single layer of NovaSeal Pro roofing underlayment mechanically fastened to the plywood every 12 in. oc in the field, 6 in. oc on the perimeter using plastic cap nails, and 4 in. overlap on horizontal joints	Asphalt shingles Listed per ASTM D3462 with a minimum weight of 190 pounds per 100 square feet installed per manufacturer's installation instructions



