



EVALUATION REPORT

FLORIDA BUILDING CODE, 8TH EDITION (2023)

Manufacturer: GLOBAL INNOVATION, LLC
313 SW Windswept Glen
Lake City, FL 32024
(877) 784-2824
www.endureed.com

Issued December 13, 2024

Manufacturing: Lake City, FL

Quality Assurance: PRI Construction Materials Technologies (QUA9110)

SCOPE

Category: Roofing
Subcategory: Roofing Accessories that are an Integral Part of the Roofing System
Code Edition: Florida Building Code, 8th Edition (2023)
Code Sections: 1504.3.1
Properties: Wind Resistance

REFERENCES

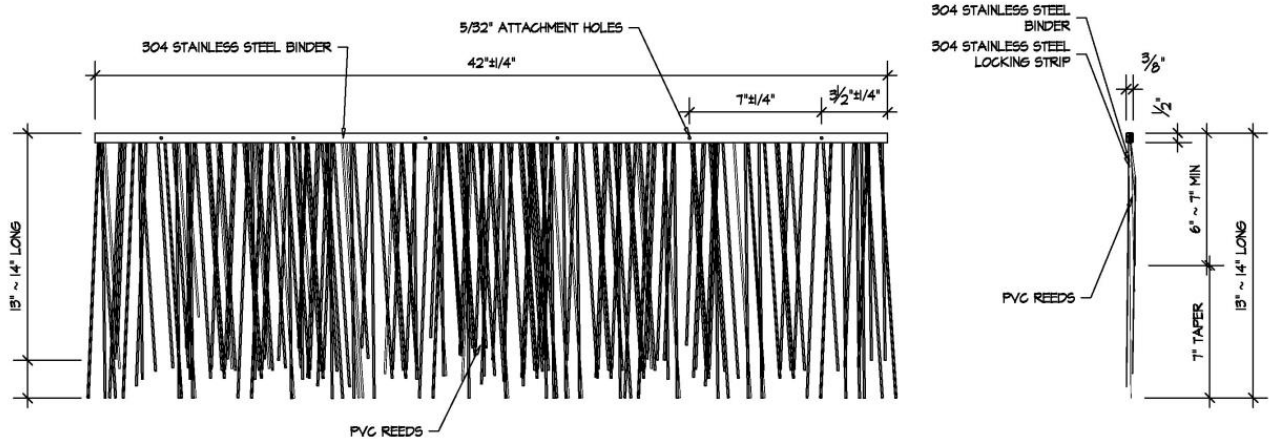
<u>Entity</u>	<u>Report No.</u>	<u>Standard</u>	<u>Year</u>
PRI Construction Materials Technologies (TST5878)	CCR-008-02-01	ASTM D 3161	2016a
		TAS 107	2020
PRI Construction Materials Technologies (TST5878)	CCR-009-02-01A	UL 1897	2015
PRI Construction Materials Technologies (TST5878)	CCR-009-02-01B	UL 1897	2015
PRI Construction Materials Technologies (TST5878)	CCR-010-02-01A	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	CCR-010-02-01B	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	CCR-011-02-01	ASTM D 3161	2016a
		TAS 107	2020
PRI Construction Materials Technologies (TST5878)	CCR-012-02-01	ASTM D 3462	2016
		ASTM D 882	2012
PRI Construction Materials Technologies (TST5878)	CCR-015-02-01	UL 1897	2015
PRI Construction Materials Technologies (TST5878)	CCR-015-02-02	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	191T0004	UL 1897	2015
PRI Construction Materials Technologies (TST5878)	191T0005	ASTM D 3462	2016
		ASTM D 882	2012
Trinity ERD	S35000.12.10-R16	ASTM D 6163	2016



PRODUCT DESCRIPTION

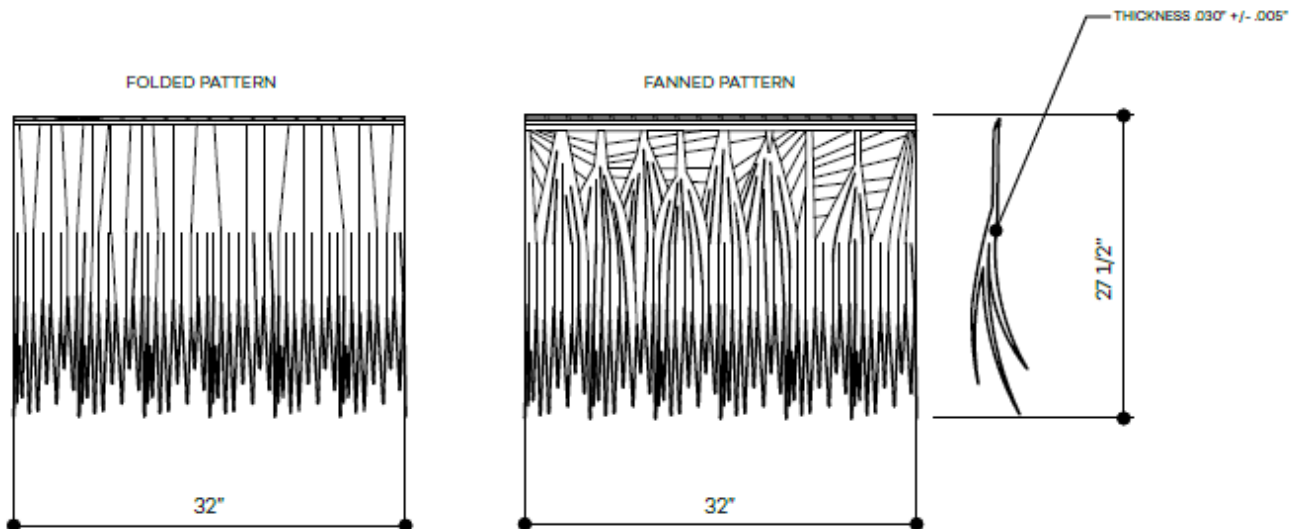
Endured – The Premium Collection (RFMB 2000)

Profile: Synthetic thatch shingle;
Description: 42 in. width x 14-15 in. tall, 6.5 to 8 in. headlap; Panels abutted end-to-end
Material: PVC reeds bound by 23 ga. grade 304 stainless steel binder strip



Endured – Viva (TFSC 0014)

Profile: Synthetic thatch shingle
Description: 32 in. width x 25-27 in. tall, 7.5 in. headlap; Minimum 2.5 in. side lap;
Material: Synthetic palm thatch comprised of composite HDPE



APPROVED ASSEMBLIES

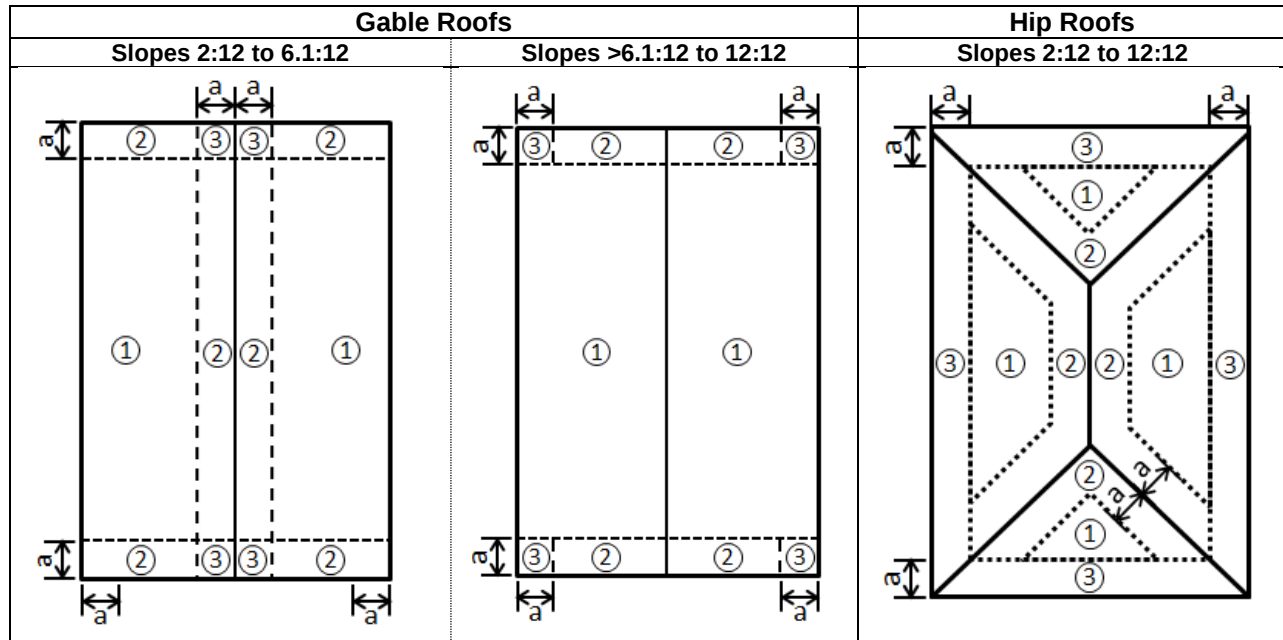
System 1 – Endureed - The Premium Collection									
Slope:	2:12 or greater								
Roof Deck:	Solid or closely fitted min. 15/32 in., 32/16 span rated, 4-ply, CDX plywood sheathing for new and existing construction at max. 24 in. span; Designed by others in accordance with FBC requirements.								
Roof Covering:	SOPREMA Elastophene Stick HR FR GR shall be applied direct to plywood deck in accordance with the manufacturer’s installation instructions.								
Surfacing:	Endureed “The Premium Collection” synthetic thatch shingles shall be installed by fastening with four (4) to seven (7) 11 ga. x 1.75 in. stainless steel ring shank roofing nails per panel. The nails shall be placed in the predrilled holes at either end of each binder and spaced between the end nails as evenly as possible and shall comply with FBC Section 1506.5.								
Maximum Design Pressures:	-82.5 psf <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>								
Maximum Mean Roof Heights Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	120	130	140	150	160	170	180	190	200
Zone 1 for Gable/Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	53 ft	36 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	33 ft	19 ft	NA	NA
D	60 ft	60 ft	60 ft	52 ft	25 ft	NA	NA	NA	NA
Zone 2 for Gable Roofs and Zones 2 & 3 for Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	43 ft	28 ft	18 ft	NA
C	60 ft	60 ft	57 ft	29 ft	15 ft	NA	NA	NA	NA
D	60 ft	55 ft	23 ft	NA	NA	NA	NA	NA	NA
Zone 3 for Gable Roofs									
B	60 ft	60 ft	60 ft	39 ft	24 ft	15 ft	NA	NA	NA
C	60 ft	31 ft	15 ft	NA	NA	NA	NA	NA	NA
D	29 ft	NA	NA	NA	NA	NA	NA	NA	NA
Notes: 1) Exposure category for the structure location shall be as defined in the Florida Building Code 2) Limitations are based on an effective wind area of 10ft ² or less 3) Topographic factors such as escarpments or hills are not included in the above assessment 4) Applicable for Enclosed Buildings without overhangs 5) NA = “Not Allowed” 6) $K_d = 0.85$ 7) $K_e = 1.0$ 8) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 9) See page 6 for details for dimensions and locales of Zone 1, 2, and 3 10) V_{ult} is shown in the tables above. Design wind loads are calculated using $V_{asd} = V_{ult}/0.6$ per 1609.3.1.									



System 2 – Endureed - Viva									
Slope:	2:12 or greater								
Roof Deck:	Solid or closely fitted min. 15/32 in., 32/16 span rated, 4-ply, CDX plywood sheathing for new and existing construction at max. 24 in. span; Designed by others in accordance with FBC requirements.								
Roof Covering:	SOPREMA Elastophene Stick HR FR GR shall be applied direct to plywood deck in accordance with the manufacturer's installation instructions.								
Surfacing:	Endureed "Viva" synthetic thatch shingles shall be installed by folding the top of the shingle up and over the front of shingle 1-inch and then fastening with six (6) 0.120 in. x 1.25 in. stainless steel ring shank roofing nails approximately 6-inches o.c. Side laps shall be offset 8-inches between courses. Nails shall comply with FBC Section 1506.5.								
Maximum Design Pressures:	-97.5 psf <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>								
Maximum Mean Roof Heights Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	120	130	140	150	160	170	180	190	200
Zone 1 for Gable/Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	43 ft	25 ft	15 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	32 ft	16 ft	NA
Zone 2 for Gable Roofs and Zones 2 & 3 for Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	52 ft	35 ft	23 ft
C	60 ft	60 ft	60 ft	60 ft	35 ft	19 ft	NA	NA	NA
D	60 ft	60 ft	60 ft	27 ft	NA	NA	NA	NA	NA
Zone 3 for Gable Roofs									
B	60 ft	60 ft	60 ft	60 ft	45 ft	29 ft	18 ft	NA	NA
C	60 ft	60 ft	34 ft	17 ft	NA	NA	NA	NA	NA
D	60 ft	30 ft	NA	NA	NA	NA	NA	NA	NA
Notes: 1) Exposure category for the structure location shall be as defined in the Florida Building Code 2) Limitations are based on an effective wind area of 10ft ² or less 3) Topographic factors such as escarpments or hills are not included in the above assessment 4) Applicable for Enclosed Buildings without overhangs 5) NA = "Not Allowed" 6) $K_d = 0.85$ 7) $K_e = 1.0$ 8) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 9) See page 6 for details for dimensions and locales of Zone 1, 2, and 3 10) V_{ult} is shown in the tables above. Design wind loads are calculated using $V_{asd} = V_{ult}\sqrt{0.6}$ per 1609.3.1.									



System 3 – Endureed - Viva									
Slope:	2:12 or greater								
Roof Deck:	Solid or closely fitted min. 19/32 in., 40/20 span rated, CDX plywood sheathing for new and existing construction at max. 24 in. span; Designed by others in accordance with FBC requirements.								
Primer:	SOPREMA, Inc. Elastacol Stick Zero applied at a rate of 0.5-1.0 gal/100ft ²								
Roof Covering:	SOPREMA, Inc. Elastophene Stick HR FR GR shall be applied direct to plywood deck in accordance with the manufacturer's installation instructions.								
Surfacing:	Endureed "Viva" synthetic thatch shingles shall be installed by folding the top of the shingle up and over the front of shingle 1-inch and then fastening with six (6) 0.120 in. x 1.25 in. stainless steel ring shank roofing nails approximately 6-inches o.c. Side laps shall be offset 8-inches between courses. Nails shall comply with FBC Section 1506.5.								
Maximum Design Pressures:	-127.5 psf <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>								
Maximum Mean Roof Heights Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	120	130	140	150	160	170	180	190	200
Zone 1 for Gable/Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	57 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	42 ft	23 ft
Zone 2 for Gable Roofs and Zones 2 & 3 for Hip Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	41 ft	24 ft	NA
D	60 ft	60 ft	60 ft	60 ft	60 ft	30 ft	16 ft	NA	NA
Zone 3 for Gable Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	51 ft	34 ft	23 ft
C	60 ft	60 ft	60 ft	60 ft	34 ft	19 ft	NA	NA	NA
D	60 ft	60 ft	60 ft	27 ft	NA	NA	NA	NA	NA
Notes: 1) Exposure category for the structure location shall be as defined in the Florida Building Code 2) Limitations are based on an effective wind area of 10ft ² or less 3) Topographic factors such as escarpments or hills are not included in the above assessment 4) Applicable for Enclosed Buildings without overhangs 5) NA = "Not Allowed" 6) $K_d = 0.85$ 7) $K_e = 1.0$ 8) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 9) See page 6 for details for dimensions and locales of Zone 1, 2, and 3 10) V_{ult} is shown in the tables above. Design wind loads are calculated using $V_{asd} = V_{ult}\sqrt{0.6}$ per 1609.3.1.									



Zones 1, 2, and 3 shall be defined as shown above. Dimension "a" shall be 10% of the least horizontal dimension or (0.4 x Mean Roof Height), whichever is smaller, but not less than either 4% of the least horizontal dimension or 3ft.

LIMITATIONS

1. This evaluation report is not for use in the HVHZ.
2. Fire classification is not within the scope of this evaluation.
3. The roof deck and the roof deck attachment shall be designed by others to meet the minimum design loads established for components and cladding and in accordance with FBC requirements.
4. The roof system shall not be installed over an existing roof.
5. Installation of the evaluated products shall comply with this report, the FBC, and the manufacturer's published application instructions. Where discrepancies exist between these sources, the more restrictive and FBC compliant installation detail shall prevail.
6. Quality Assurance for SOPREMA modified bituminous roofing products is provided under FL3915.
7. All products listed in this report shall be manufactured under a quality assurance program in compliance with Rule 61G20-3.

COMPLIANCE STATEMENT

This report has been prepared in accordance with F.A.C. Rule 61G20-3.



**This item has been
digitally signed and
sealed by Zachary R.
Priest, PE, on 12/13/2024.**

**Printed copies of this
document are not
considered signed and
sealed and the signature
must be verified on any
electronic copies.**

Zachary R. Priest, P.E.
Florida Registration No. 74021
Organization No. ANE9641

CERTIFICATION OF INDEPENDENCE

CREEK Technical Services, LLC does not have, nor will it acquire, a financial interest in any company manufacturing or distributing products under this evaluation.

CREEK Technical Services, LLC is not owned, operated, or controlled by any company manufacturing or distributing products under this evaluation.

Zachary R. Priest, P.E. does not have, nor will acquire, a financial interest in any company manufacturing or distributing products under this evaluation.

Zachary R. Priest, P.E. does not have, nor will acquire, a financial interest in any other entity involved in the approval process of the product.

END OF REPORT