



EVALUATION REPORT

FLORIDA BUILDING CODE, 8TH EDITION (2023)

Manufacturer: Enviroshake
650 Riverview Drive
PO Box 1462
Chatham, ON N7M 5W8
Canada
(866) 423-3302
www.enviroshake.com

Issued September 10, 2023

Manufacturing Plants: Chatham, ON

Quality Assurance: Intertek Testing Services NA Inc. (QUA1673)

SCOPE

Category: Roofing
Subcategory: Products Introduced as a Result of New Technology
Code Edition: Florida Building Code, 8th Edition (2023)
Code Sections: 1504.3
Properties: Wind Resistance

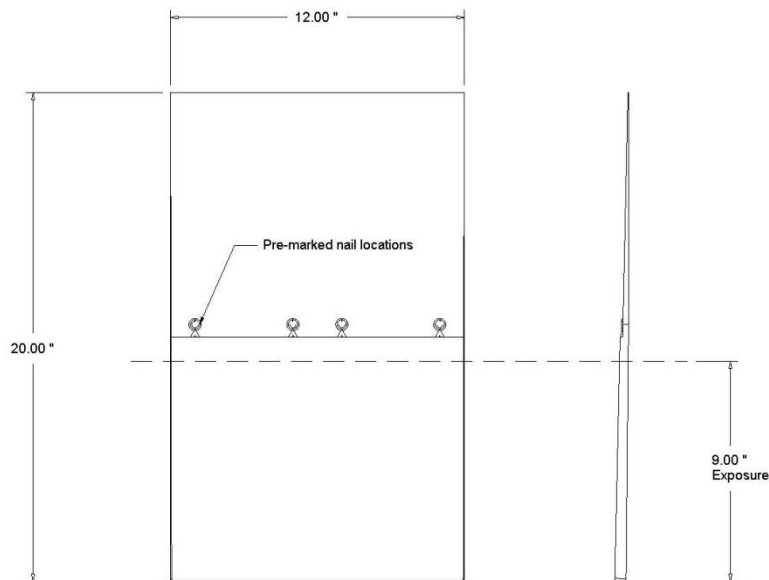
REFERENCES

<u>Entity</u>	<u>Report No.</u>	<u>Standard</u>	<u>Year</u>
PRI Construction Materials Technologies (TST5878)	CMTL-001-02-01	ASTM G 155	2013
PRI Construction Materials Technologies (TST5878)	CMTL-004-02-01	UL 580	2006
		UL1897	2015
PRI Construction Materials Technologies (TST5878)	CMTL-005-02-01	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	CMTL-008-02-01	UL 580	2006
		UL 1897	2015
PRI Construction Materials Technologies (TST5878)	1611T0001	UL 580	2006
		UL1897	2015
PRI Construction Materials Technologies (TST5878)	1611T0003	ASTM D 3462	2016
		ASTM D 3767	2003(2020)
		ICC-ES AC07	2014
PRI Construction Materials Technologies (TST5878)	1611T0004	UL 580	2006
		UL1897	2015
		TAS 125	2003
PRI Construction Materials Technologies (TST5878)	1611T0005	TAS 100	2023

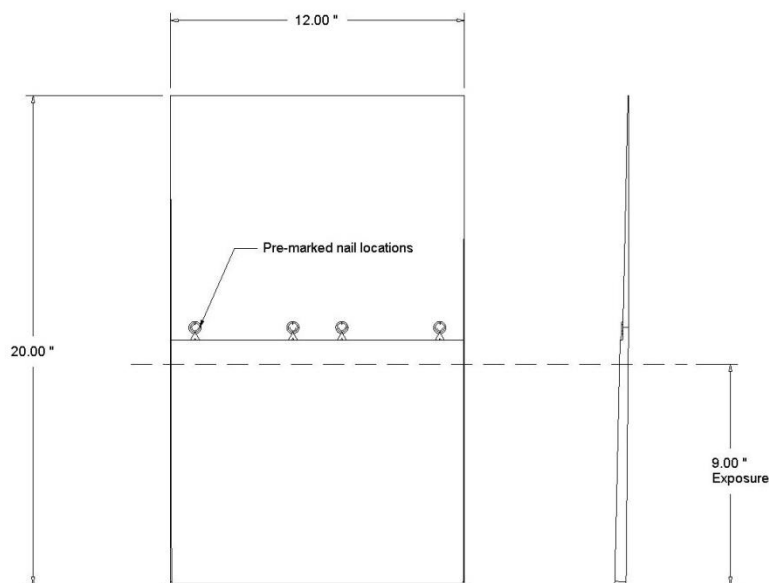


PRODUCT DESCRIPTION

Product:	Enviroshake Roofing
Description:	Composite, taper-split, cedar shake-style roofing tile with exposed surface striated for first 9-inches from butt end and flat and smooth to tapered end
Material:	Blend of post-industrial plastic, elastomers and cellulosic fiber materials
Size:	12-inches wide, 20-inches long, measuring approximately 1/2-inches on butt end narrowing to approximately 1/8-inches
Types:	6-6 Split, 8-4 Split, 4-8 Split, 5-7 Split, 7-5 Split, Full 12" and Custom Molded Ridge Cap,



Product:	Enviroslate Roofing
Description:	Composite, slate-style roofing tile with exposed surface for first 9-inches from butt end
Material:	Blend of post-industrial plastic, elastomers and cellulosic fiber materials
Size:	12-inches wide, 20-inches long



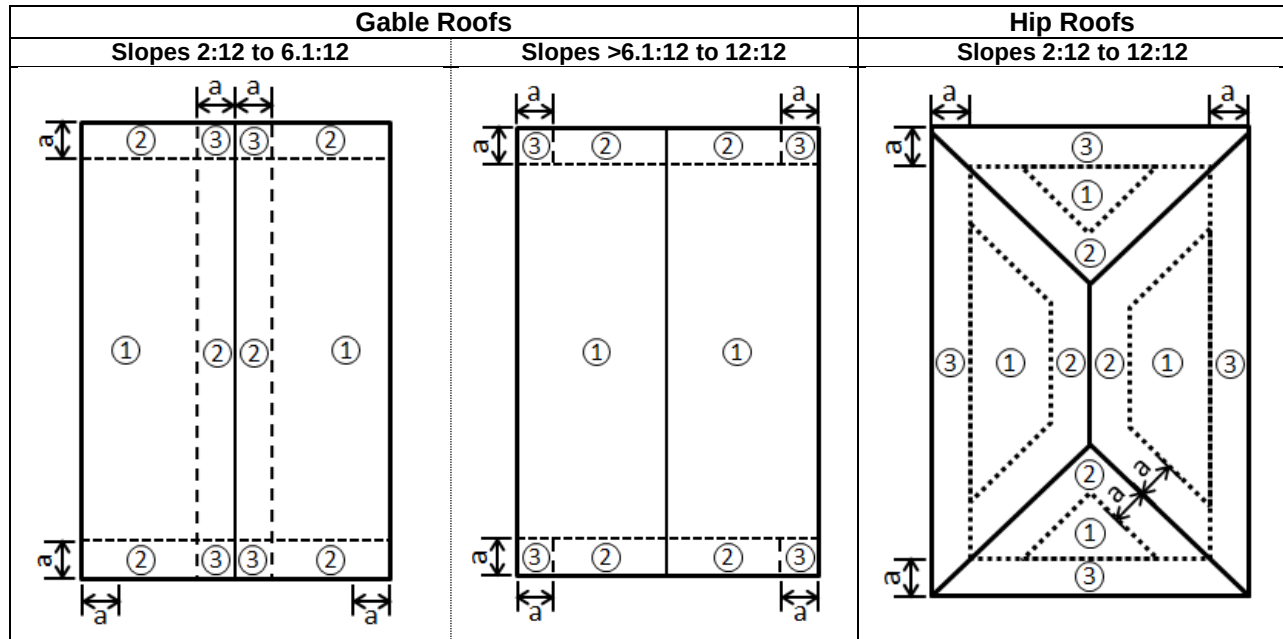


APPROVED ASSEMBLIES

Assembly No. 1: Enviroshake/Enviroslate Roofing over Wood Deck									
Composite Shake:	Enviroshake or Enviroslate shall be installed with a maximum 9-inch exposure in courses with 3/8-inch gap at side joint ensuring no keyway on keyway or “staircase” patterns; Side joints staggered between courses shall be offset a minimum of 1.5-inch; Use double layer starter course at bottom edges, including vertical and high slope roof surfaces.								
Fasteners:	Fasten with min. 0.120-inch x 1.75-inch stainless steel, ring shank roofing nails with 3/8-inch diameter heads at a minimum rate of four (4) nails per shingle at the pre-marked locations. The fastener length shall be sufficient to penetrate through the deck a minimum of 3/8-inch.								
Underlayment:	In accordance with the FBC.								
Deck:	Deck shall be solidly sheathed with minimum 15/32-inch thick 32/16 span rated, 4-ply, CDX plywood, or wood plank for new and existing construction with a maximum 24-inch span (Designed by others to meet the wind loads for components and cladding in accordance with the FBC)								
Slope:	4:12 or greater								
Allowable Pressure:	-120 psf <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>								
Allowable Mean Roof Heights Slope 4:12 – 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	42 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	56 ft	30 ft	16 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	51 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	53 ft	30 ft	18 ft	NA
D	60 ft	60 ft	60 ft	60 ft	43 ft	21 ft	NA	NA	NA
Zone 3 for Gable Roofs									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	41 ft	27 ft	18 ft
C	60 ft	60 ft	60 ft	48 ft	25 ft	NA	NA	NA	NA
D	60 ft	60 ft	42 ft	19 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 5 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.									



Assembly No. 2: Enviroshake/Enviroslate Roofing over Wood Deck									
Composite Shake:	Enviroshake or Enviroslate shall be installed with a maximum 9-inch exposure in courses with 3/8-inch gap at side joint ensuring no keyway on keyway or “staircase” patterns; Side joints staggered between courses shall be offset a minimum of 1.5-inch; Use double layer starter course at bottom edges, including vertical and high slope roof surfaces.								
Fasteners:	Fasten with min. 0.120-inch x 1.5-inch stainless steel, ring shank roofing nails with 3/8-inch diameter heads at a minimum rate of four (4) nails per shingle at the pre-marked locations. The fastener length shall be sufficient to penetrate through the deck a minimum of 3/8-inch.								
Underlayment:	In accordance with the FBC.								
Deck:	Deck shall be solidly sheathed with minimum 19/32-inch thick 40/20 span rated, 4-ply, CDX plywood or wood plank for new and existing construction with a maximum 24-inch span (Designed by others to meet the wind loads for components and cladding in accordance with the FBC)								
Slope:	4:12 or greater								
Allowable Pressure:	-127.5 psf <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>								
Allowable Mean Roof Heights Slope 4:12 – 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 5 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.									



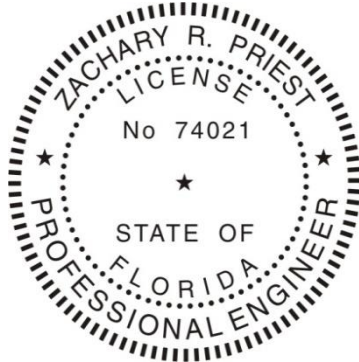
Dimension "a" shall be 10% of the least horizontal dimension or (0.4 x Mean Roof Height), whichever is smaller, but not less than either 4% of the least horizontal dimension or 3ft.

LIMITATIONS

1. This evaluation 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. Installation of the evaluated products shall comply with this report and the manufacturer's published application instructions. See manufacturer's instructions for flashing and drip edge considerations. This report shall govern in the event of conflict with the manufacturer's installation instructions.
5. Enviroshake shall not be installed over existing roofing.
6. All products listed in this report shall be manufactured under a quality assurance program in compliance with Rule 61G20-3.

COMPLIANCE STATEMENT

The products evaluated herein by Zachary R. Priest, P.E. have demonstrated compliance with the Florida Building Code, 8th Edition (2023) as evidenced in the referenced documents submitted by the named manufacturer.



This item has been
digitally signed and
sealed by Zachary R.
Priest, PE, on 9/10/2023.

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


Digitally signed by Zachary R. Priest
CREEK Technical Services, LLC

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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