



EVALUATION REPORT

FLORIDA BUILDING CODE, 7TH EDITION (2020)

Manufacturer: Euroshield Roofing/G.E.M. Inc.
9330 48 St. SE
Calgary, AB T2C 2R2
Canada
(877) 387-7667
www.euroshieldroofing.com

Issued June 9, 2021

Manufacturing Plants: Calgary, Alberta, Canada

Quality Assurance: QAI Laboratories (QUA7628)

SCOPE

Category: Roofing
Subcategory: Products Introduced as a Result of New Technology
Code Sections: 1504.3
Properties: Wind Resistance

PRODUCT DESCRIPTION AND APPLICATION

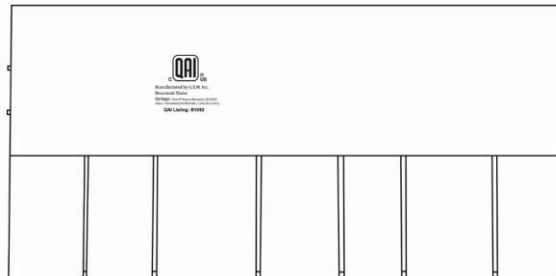
Product: Beaumont Shake

Description: Composite, injection molded, rubber-based panels with exposed surface molded to emulate wood shakes. An adhesive strip is factory-applied to the underside of the exposed region of the panel approximately 0.75-inches up from the exposed edge.

Material: Blend of recycled rubber and other proprietary materials, including color.

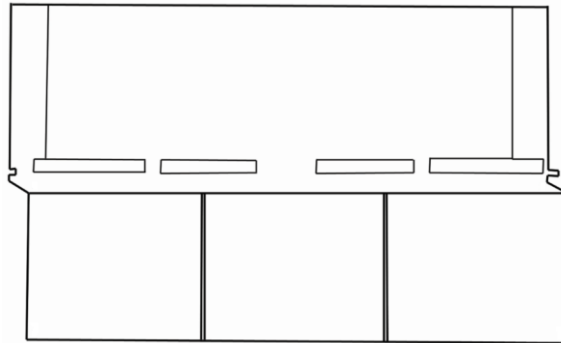
Size: 40-inches long, 20-inches wide, and weighing approximately 5.2 lbs. Reinforcing ribs parallel to the width of the panel and at nominal 1.65-inch o.c. are molded into the underside for structural support. The shingle shall be installed in with a 9-inch exposure.

Types: Beaumont Shake – panels molded to form variable width shake patterns with keyways from 5-inch o.c. to 9-inch o.c. Fastener locations are molded into the product.

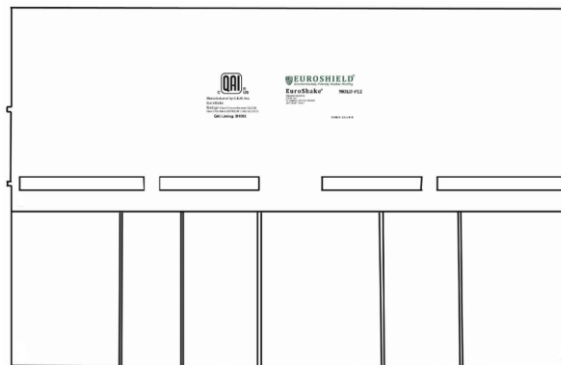




- Product:** Rundle Slate
- Description:** Composite, injection molded, rubber-based panels with exposed surface molded to emulate natural slates. The leading edge of the slate interlocks with the preceding course.
- Material:** Blend of recycled rubber and other proprietary materials, including color.
- Size:** 36-inches long, 22-inches wide, weighing approximately 8.5 lbs. Reinforcing ribs parallel to the width of the panel and at nominal 1.65-inch o.c. are molded into the underside for structural support. The shingle shall be installed in with a 10-inch exposure.
- Types:** Rundle Slate – panels molded to form (3) “slate” tabs, with keyways at approx. 12-inches o.c. Fastener locations are molded into the product.



- Product:** Ranchlands Shake
- Description:** Composite, injection molded, rubber-based panels with exposed surface molded to emulate natural slates. The leading edge of the slate interlocks with the preceding course.
- Material:** Blend of recycled rubber and other proprietary materials, including color.
- Size:** 36-inches long, 22-inches wide, weighing approximately 7.7 lbs. Reinforcing ribs parallel to the width of the panel and at nominal 1.65-inch o.c. are molded into the underside for structural support. The shingle shall be installed in with a 10-inch exposure.
- Types:** Ranchlands Shake – panels molded to form (3) “slate” tabs, with keyways at approx. 5-inch o.c. to 9-inch o.c. Fastener locations are molded into the product.



APPROVED ASSEMBLIES

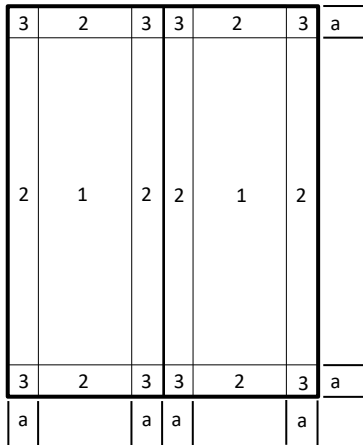
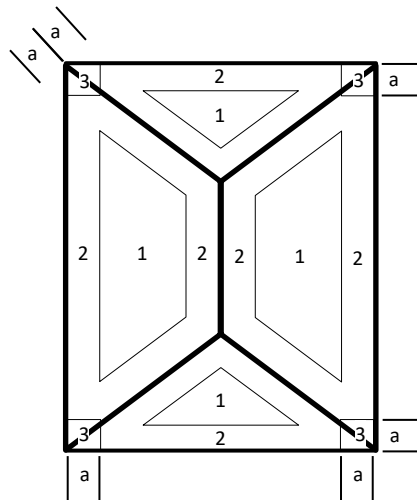
Assembly No. 1: Beaumont Shake									
Composite Roof:	Beaumont Shake shall be installed with a maximum 9-inch exposure in courses. Side joints shall be staggered between courses in accordance with the manufacturer's published installation instructions. Use starter course at bottom edges.								
Fasteners:	Fasten with 0.120-inch stainless steel, ring shank roofing nails with 3/8-inch diameter heads at a minimum rate of eighteen (18) nails per Beaumont Shake panel in two rows of 9 fasteners at the pre-marked locations. The fastener length shall be minimum 1 3/4-inch long and shall penetrate through the decking by a minimum of 3/8-inch.								
Underlayment:	Minimum ASTM D 226 Type II felt installed in accordance with Section 1507.2.8 of the FBC. Other <i>Approved</i> underlayments may be substituted provided they are appropriate for use with composite roofing.								
Deck:	Deck shall be solidly sheathed with minimum 15/32-inch thick APA span rated 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:	-180 psf <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>								
Maximum Mean Roof Heights for Gable/Hip Roofs Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	≤120	130	140	150	160	170	180	190	200
Zone 1 – Field									
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	60 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
Zone 2 (includes 2e, 2n, and 2r) – Perimeter									
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	47 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	36 ft	20 ft
Zone 3 (includes 3e and 3r) – Corner									
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	57 ft	34 ft	21 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	48 ft	24 ft	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) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 8) See page 11 for details for dimensions and locales of Zone 1, 2, and 3 9) 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.									



Assembly No. 2: Rundle Slate and Ranchlands Shake									
Composite Roof:	Rundle Slate/Ranchlands Shake shall be installed with a maximum 10-inch exposure in courses. Side joints shall be staggered between courses in accordance with the manufacturer's published installation instructions. Use starter course at bottom edges.								
Fasteners:	Fasten with 0.120-inch stainless steel, ring shank roofing nails with 3/8-inch diameter heads at a minimum rate of seven (7) nails per Rundle Slate/Ranchlands Shake panel installed 12-inches above the exposed edge at the pre-marked locations (see Appendix A). The fastener length shall be minimum 1 3/4-inch long and shall penetrate through the decking by a minimum of 3/8-inch.								
Underlayment:	Minimum ASTM D 226 Type II felt installed in accordance with Section 1507.2.8 of the FBC. Other <i>Approved</i> underlayments may be substituted provided they are appropriate for use with composite roofing.								
Deck:	Deck shall be solidly sheathed with minimum 15/32-inch thick APA span rated 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:	-75 psf <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>								
Maximum Mean Roof Heights for Gable/Hip Roofs Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	≤120	130	140	150	160	170	180	190	200
Zone 1 – Field									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	50 ft	34 ft	24 ft
C	60 ft	60 ft	60 ft	60 ft	37 ft	21 ft	NA	NA	NA
D	60 ft	60 ft	60 ft	31 ft	NA	NA	NA	NA	NA
Zone 2 (includes 2e, 2n, and 2r) – Perimeter									
B	60 ft	60 ft	60 ft	48 ft	30 ft	20 ft	NA	NA	NA
C	60 ft	44 ft	22 ft	NA	NA	NA	NA	NA	NA
D	46 ft	18 ft	NA	NA	NA	NA	NA	NA	NA
Zone 3 (includes 3e and 3r) – Corner									
B	60 ft	60 ft	42 ft	26 ft	16 ft	NA	NA	NA	NA
C	42 ft	19 ft	NA	NA	NA	NA	NA	NA	NA
D	17 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) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 8) See page 11 for details for dimensions and locales of Zone 1, 2, and 3 9) V_{ult} is shown in the tables above. Design wind loads are calculated using $V_{asrt} = V_{ult}\sqrt{0.6}$ per 1609.3.1.									



Assembly No. 3: Rundle Slate and Ranchlands Shake									
Composite Roof:	Rundle Slate/Ranchlands Shake shall be installed with a maximum 10-inch exposure in courses. Side joints shall be staggered between courses in accordance with the manufacturer's published installation instructions. Use starter course at bottom edges.								
Fasteners:	Fasten with 0.120-inch stainless steel, ring shank roofing nails with 3/8-inch diameter heads at a minimum rate of sixteen (16) nails per Rundle Slate/Ranchlands Shake panel installed 11-inches above the exposed edge (see Appendix A). The fastener length shall be minimum 1 3/4-inch long and shall penetrate through the decking by a minimum of 3/8-inch.								
Underlayment:	Minimum ASTM D 226 Type II felt installed in accordance with Section 1507.2.8 of the FBC. Other <i>Approved</i> underlayments may be substituted provided they are appropriate for use with composite roofing.								
Deck:	Deck shall be solidly sheathed with minimum 15/32-inch thick APA span rated 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:	-172.5 psf <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>								
Maximum Mean Roof Heights for Gable/Hip Roofs Slopes 2:12 – 12:12									
Exposure	Basic Wind Speed (mph)								
	≤120	130	140	150	160	170	180	190	200
Zone 1 – Field									
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	60 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
Zone 2 (includes 2e, 2n, and 2r) – Perimeter									
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	39 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	52 ft	28 ft	15 ft
Zone 3 (includes 3e and 3r) – Corner									
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	46 ft	28 ft	17 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	37 ft	19 ft	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) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 8) See page 11 for details for dimensions and locales of Zone 1, 2, and 3 9) V_{ult} is shown in the tables above. Design wind loads are calculated using $V_{asrt} = V_{ult}\sqrt{0.6}$ per 1609.3.1.									

Gable

Hip


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.

REFERENCES

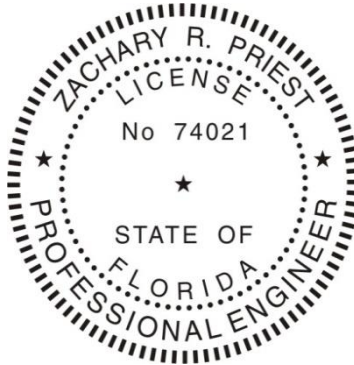
<u>Entity</u>	<u>Report No.</u>	<u>Standard</u>	<u>Year</u>
PRI Construction Materials Technologies (TST5878)	GEM-013-02-01	UL 580	2006
		UL 1897	2012
PRI Construction Materials Technologies (TST5878)	GEM-014-02-01	UL 580	2006
		UL 1897	2012
PRI Construction Materials Technologies (TST5878)	GEM-016-02-01	UL 580	2006
		UL 1897	2012

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. 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, 7th Edition (2020) 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 6/9/2021.

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

2021.06.09

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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.



Figure 1: 18 nails/shingle installation Beaumont Shake

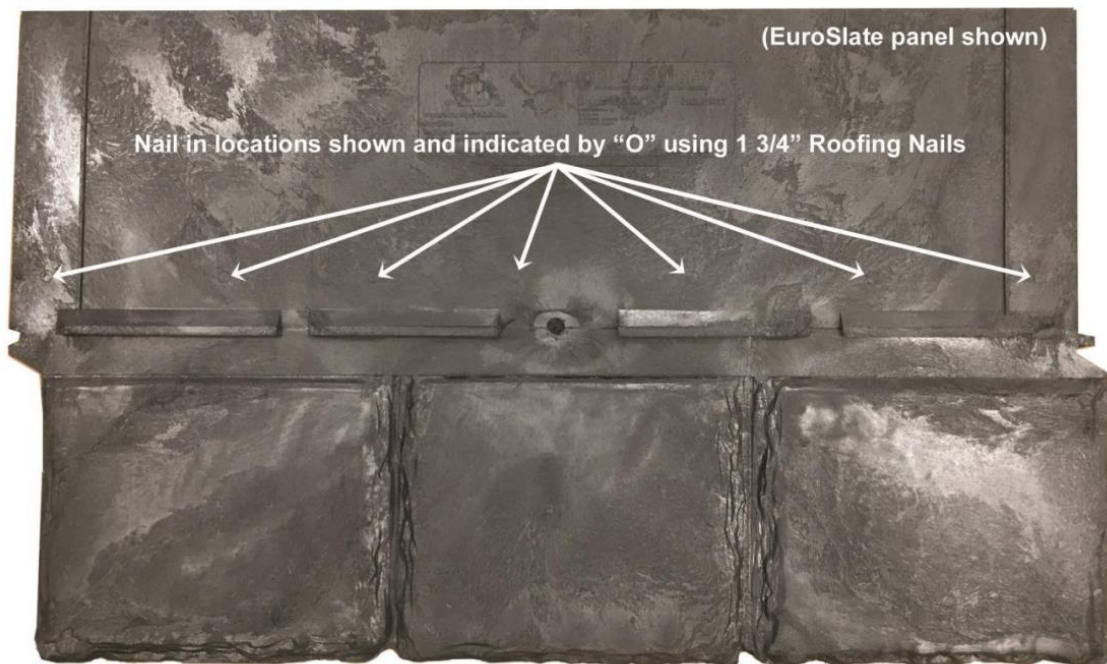


Figure 2: 7 nails/shingle installation of Rundle Slate and Ranchlands Shake



Figure 3: 16 nails/shingle installation of Rundle Slate



Figure 4: 16 nails/shingle installation of Ranchlands Shake

END OF REPORT