CODE EVALUATION REPORT

CERUS-1013

PUBLISHED:	November 2022
REVISED:	April 2025
EXPIRATION:	March 2027

PRODUCT:	**Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc**
REPORT HOLDER:	G.E.M. Inc (Euroshield Roofing),
CONTACT DETAILS:	9330 48th Street SE Calgary, Alberta Canada T2C 2R2 www.website.com/
CSI DIVISION:	**07 00 00 - Thermal and Moisture Protection**
CSI SECTION:	07 31 33 – Composite Rubber Shingles
APPLICABLE CODES:	2021, 2018, 2015 International Building Code (IBC) 2021, 2018, 2015 International Residential Code (IRC) 2023, 2020 Florida Building Code, Building (FBC) 2023, 2020 Florida Building Code, Residential (FRC)
EVALUATED:	Weather Resistance Wind Resistance Roof Fire-Classification Hail-Impact Resistance

IAS ACCREDITED Product Certification Agency PCA-118

QUALITY - ACCOUNTABILITY - INTEGRITY
TESTING - INSPECTION - CERTIFICATION

www.qai.org
QAI LABORATORIES
LOS ANGELES | TULSA | MIAMI | TORONTO | VANCOUVER | SEOUL | SHANGHAI

1.0 APPROVED FOR FOLLOWING:

APPROVED TYPES OF CONSTRUCTION:	Type IIB, IIIB, VB
APPROVED USE:	Roofing coverings for use in Class C roof assemblies.
APPROVED INSTALLATIONS:	Roofs including fire-classified as detailed in Section 4 of this report.

2.0 DESCRIPTION:

2.1 General:

G.E.M. Inc (Euroshield), Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc products are composite roof coverings and accessories molded from a proprietary formulation including post-consumer waste recycled rubber and additives. Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc products are exterior roof covering available in various profiles and colors for use on slopes ≥ 4:12 to ≤ 20:12. When installed in accordance with this report, Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc products provide Class C roof-assemblies determined in accordance with Section 1505.1 of the 2024 / 2021 / 2018 / 2015 IBC and Section R902.1 of the 2024 / 2021 / 2018 / 2015 IRC that are additionally resistant to hail and impact.

Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc products have a spontaneous ignition temperature ≥ 650°F (343°C) when tested to ASTM D1929 and are classified as CC2 when tested to ASTM D635.

See Table 1 below for recognized models of Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc roof coverings. See Figures 2-5 in Section 9.1 of this report for drawings of the products listed in Table 1.

Table 1. GEM COMPOSITE RUBBER ROOF COVERING DIMENSIONS

PRODUCT	LENGTH		WIDTH		INSTALLED EXPOSURE		INSTALLED WEIGHT	
	inches	mm	inches	mm	inches	mm	lbs/ft^2	kg/m^2
Ranchland Shake	22.5	572	36	914	10	254	3.4	16.6
Rundle Slate	22.5	572	36	914	10	254	3.4	16.6
Beaumont Shake	20	508	40	1016	9	229	2.1	10.3
Vermont Slate Loc	20	508	40	1016	9	229	2.4	11.2

GEM has various accessory elements available for gables, trim, and ridges.

Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc products comply for use as roof coverings per the 2023 / 2020 Florida Building Code (FBC), and 2023 / 2020 Florida Building Code, Residential (FRC) excluding use in areas defined as high-velocity hurricane zones. See Section 10 of this report for further details.

2.2 PRODUCTS

2.2.1 RANCHLANDHAKE:

Ranchland Shake panel profiles are supplied with dimensions of 22.5 inches x 36 inches (572 mm x 914 mm) with a product weight of 7.7 lbs (3.5 kg). Ranchland Shake products include standard nailing locations across the width of panel and top and bottom panel locks with a tongue and groove system molded into the panel for ease of placement. Ranchland Shake products are molded to create a wood style shake finish. Ranchland Shake panels are available in a variety of colors.

2.2.2 RUNDLE SLATE:

Rundle Slate panel profiles are supplied with dimensions of 22.5 inches x 36 inches (572 mm x 914 mm) with a product weight of 8.9 lbs (4.0 kg). Rundle Slate include standard nailing locations across the width of panel and top and bottom panel locks with a tongue and groove system are molded into the panel for ease of placement. Rundle Slate products are molded to create a slate style finish. Rundle Slate panels are available in a variety of colors.

2.2.3 BEAUMONT SHAKE:

Beaumont Shake panel profiles are supplied with dimensions of 20 inches x 40 inches (508 mm x 1016 mm) with a product weight of 5.9 lbs (2.7 kg). Beaumont Shake include standard nailing locations across the width of panel and top and bottom panel locks with a tongue and groove system are molded into the panel for ease of placement. Beaumont Shake products are molded to create a wood style shake finish. Beaumont Shake panels are available in a variety of colors.

2.2.4 VERMONT SLATE LOC:

Vermont Slate Loc panel profiles are supplied with dimensions of 20 inches x 40 inches (508 mm x 1016 mm) with a product weight of 6.1 lbs (2.8 kg). Vermont Slate Loc include standard nailing locations across the width of panel and top and bottom panel locks with a tongue and groove system are molded into the panel for ease of placement. Vermont Slate Loc products are molded to create a slate style finish. Vermont Slate panels are available in a variety of colors.

3.0 DESIGN:

Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc products are roof coverings for installation over code complying roof sheathings and underlayment. Use of Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc products do not require professional design when installed in accordance with Sections 4.1 through 4.5 of this report. Use in applications outside those described in this report requires approval by the authority having jurisdiction.

Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc products are intended for use as the finished roof covering on new, and over existing construction where existing roof coverings and underlayment have been removed in accordance with Section 4.2 and 4.3 of this report as applicable.

Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc products are approved for use in areas of maximum wind uplift for installations as outlined in Section 8.1 of this report. Use of Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc products in applications of wind resistance greater than those described in Section 8.1 are outside the scope of this report and requires approval by the authority having jurisdiction.

When used in applications requiring roof-fire classified assemblies, installation shall conform to Section 4.4 and Section 8.2 Table 3 of this report.

When installed in areas defined as hail-prone, installation shall be in accordance with Section 4.5 and Table 4 of this report for the hail-impact classification levels described.

4.0 INSTALLATIONS:

4.1 General:

Installation of Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc products must comply with the manufacturer's published installation instructions, this report, and the applicable code(s). Where differences are found, this report and the applicable building code shall be followed.

Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc products require installation over solid wood panel or wood-based sheathing of minimum ½ inch (13 mm) thickness complying with the applicable code. Attachment of the sheathing to the underlying framing elements is outside the scope of this report and shall be sufficient to resist service wind loads. Roof slopes are to be ≥ 4:12 (33%) ≤ 20:12 (167%) slope.

Flashing, counterflashing and valley flashings shall be sheet metal complying with the applicable code, where the sheet metal is G90 galvanized of minimum 0.0179 inches (0.455 mm) uncoated thickness. Valley flashing shall be a minimum 14 inches (381 mm) wide sheet metal of minimum 0.0179 inches (0.455 mm) uncoated thickness. Flashing including fasteners shall not be in contact with dissimilar metals to avoid corrosion. Flashing shall prevent moisture from entering the wall and roof in accordance with Section 1503.2 of the 2024 / 2021 / 2018 / 2015 IBC and Section R903.2 of the 2024 / 2021 / 2018 / 2015 IRC.

While not required, drop edge flashings are rake edge flashings are recommended installed in accordance with good roofing practice.

4.1.1 Underlayment:

Underlayment must comply with and be installed in accordance with the applicable code and the manufacturer's published installation instructions. For fire-classified roof assemblies, underlayment shall be installed in accordance with Section 4.4 and Table 3 of this report.

In areas where there is potential for or has been a history of ice forming along eaves causing the backup of water an ice barrier is required. The ice barrier may consist of:

a) Two layers of ASTM D226 Type I, ASTM D4869 Type I or ASTM D6757 underlayment cemented together or
b) A self-adhering polymer modified bitumen sheet complying to ASTM D1970.

Alternate ice barriers are outside the scope of this report but may be used where approved by the authority having jurisdiction.

The ice barrier shall be used as an alternative to the normal underlayment, extending from the lowest edges of all roof surfaces to a point at least 24 inches (610 mm) inside the exterior wall line of the structure. Following, the standard underlayment shall be lapped over the ice barrier and shall overlap a minimum of 4 inches (102 mm). Attachment and overlapping of the ice barrier to underlayment are outside the scope of this report and is to be in accordance with the applicable code and the ice barrier manufacturer's published installation instructions.

4.2 New Construction:

Starter strips are installed with a ¾-inch (19 mm) to 1-inch (25 mm) overhang at the fascia board across the roof deck leaving 1/8-inch (3 mm) space from the gable trim. Subsequent rows of panels are installed with maximum exposures as outlined Table 1 of this report, through positioning of panel with the profile's molded tongue and grooves. Approved fasteners as outlined in Table 2 are installed through denoted "X" and "O" locations found on Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate products as illustrated on Figures 2 through 5 of this report. Upon reaching the roof peak, the last row of panels may be trimmed flush with the peak to accommodate placement of the upper edge. All penetrations and chimneys are to be flashed in accordance with the appropriate code to prevent water ingress.

Ridges, valleys and hips are to be installed in accordance with the manufacturer's installation instructions and the applicable codes.

4.3 Reroofing Applications:

Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc products are not intended for installation over existing roof systems. Existing roof coverings and underlayment are to be removed, and the sheathing inspected to ensure the roof structure is free of rot and damage prior to installation of Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc products. After removal of existing roof covering and underlayment, installation following the conditions noted in Section 4.1 and 4.2 shall apply.

4.4. Roof Fire Classified Assemblies:

Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc products comply for use as Class C roof-assemblies per 2024 / 2021 / 2018 / 2015 IBC Section 1505.1 and 2024 / 2021 / 2018 / 2015 IRC Section R902.1. Installation including maximum roof slope is to be in accordance with Section 8.1 Table 3 of this report.

4.5 Hail-Impact Resistance:

Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc products are Class IV impact resistance rated evaluated following UL 2218. Installation is to be in accordance with Table 4 of this report.

5.0 LIMITATIONS

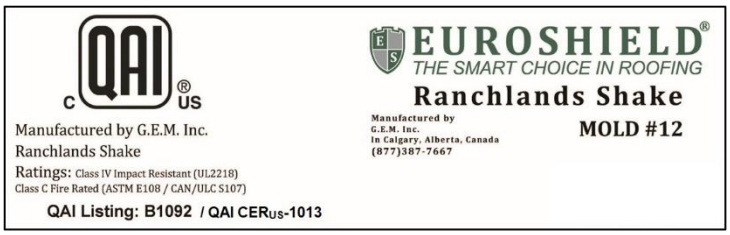
- Installation of the Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc products are to comply with the applicable codes, this report and the manufacturer's installation instructions. Where differences are found, the applicable codes and this report shall be followed.
- Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc products are intended for use on roof slopes 4:12 (33%) ≤ 20:12 (167%). Use on slopes beyond this range are outside the scope of this report.
- Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc products are limited to use in areas of maximum pressure resistance as outlined in Section 8.1 of this report. Use in areas requiring greater uplift resistance is outside the scope of this report.
- Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc products when used in Class C roof-assemblies shall be installed in accordance with Section 4.4 and Section 8.1 Table 3 of this report.
- Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc products used in hail-prone areas are to be installed in accordance with Section 4.5 and Section 8.1 Table 4 of this report.
- Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate products are manufactured in Calgary, Alberta Canada with bi-annual inspections by QAI Laboratories.

6.0 SUPPORTING INFORMATION:

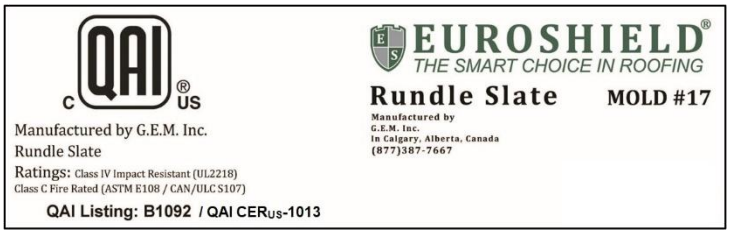
The following data has been evaluated for GEM Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc products:

- Data for use in roof fire classified assemblies determined in accordance with ASTM E108 *Fire Tests of Roof Coverings*.
- Data outlining compliance with 2021 / 2018 / 2015 IBC Section 1504.7 and 2021 / 2018 / 2015 IRC Section R905.4 showing no loss of tensile strength after aging to ASTM G155 *Practice for Operations Xenon Arc Light Apparatus for Exposure of Nonmetallic Materials*.
- Data outlining CC2 rate of burning determined in accordance with ASTM D635.
- Data outlining spontaneous ignition temperature > 650ºF (343ºC) determined in accordance with ASTM D1929.
- Data for impact testing to UL 2218 *Standard for Safety Impact Resistance of prepared Roof Covering Materials*.
- Data for wind resistance in accordance with ASTM D3161 *Standard Test Method for Wind Resistance of Steep Slope Roofing Products (Fan-Induced Method)*.
- Data outlining compliance with ICC-ES AC07 *Acceptance Criteria for Special Roofing Systems*.

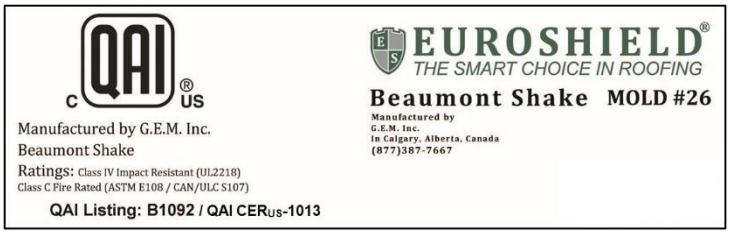
7.0 MARKINGS:



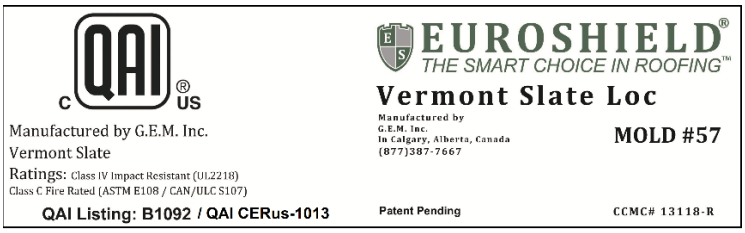
Ranchland Shake Finished Product Label



Rundle Slate Finished Product Label



Beaumont Shake Finished Product Label



Vermont Slate Loc Finished Product Label

Figure 4. Finished Product Label Examples

8.0 RATINGS:

8.1 Wind Uplift Resistance:

Table 2 – Maximum Allowable Wind Uplift Pressures on Roofing Panel Assemblies[1,2]

PRODUCT	MINIMUM SHEATHING[1]	MINIMUM FASTENERS	INSTALLATION	MAXIMUM WIND UPLIFT psf (kPa)
Ranchland Shake	15/32-inch Thickness Exposure 1 Grade Plywood	1-3/4-inch (44 mm) length galvanized ring shank roofing nail with minimum 3/8-inch (9.5 mm) head diameter	Maximum installation for 10-inch (254 mm) exposure with joints staggered between rows. Seven (7) fasteners per Ranchlands Shake panel applied in at prescribed fastener locations marked on product.	75 (3.6)
	15/32-inch Thickness Exposure 1 Grade Plywood	1-3/4-inch (44 mm) length galvanized ring shank roofing nail with minimum 3/8-inch (9.5 mm) head diameter	Maximum installation for 10-inch (254 mm) exposure with joints staggered between rows. Sixteen (16) fasteners per Ranchlands Shake panel applied 11-inches (279 mm) above exposed edge.	173 (8.3)
Rundle Slate	15/32-inch Thickness Exposure 1 Grade Plywood	1-3/4-inch (44 mm) length galvanized ring shank roofing nail with minimum 3/8-inch (9.5 mm) head diameter	Maximum installation for 10-inch (254 mm) exposure with joints staggered between rows. Seven (7) fasteners per Rundle Slate panel applied in at prescribed fastener locations marked on product.	75 (3.6)
	15/32-inch Thickness Exposure 1 Grade Plywood	1-3/4-inch (44 mm) length galvanized ring shank roofing nail with minimum 3/8-inch (9.5 mm) head diameter	Maximum installation for 10-inch (254 mm) exposure with joints staggered between rows. Sixteen (16) fasteners per Ranchlands Shake panel applied 11-inches (279 mm) above exposed edge.	173 (8.3)
Beaumont Shake	15/32-inch Thickness Exposure 1 Grade Plywood	1-3/4-inch (44 mm) length galvanized ring shank roofing nail with minimum 3/8-inch (9.5 mm) head diameter	Maximum installation for 9-inch (229 mm) exposure with joints staggered between rows. Eighteen (18) fasteners per Beaumont Shake panel applied in two (2) rows of nine (9) fasteners at each prescribed fastener location marked on product.	180 (8.6)

Note 1: Attachment of sheathing to framing is outside the scope of this report and is to be suitable for resisting wind uplift shown.
Note 2: Uplift resistance is determined based on testing in accordance with UL 580 / UL 1897 with an applied factor of safety of 2.

Table 3 – Maximum Allowable Wind Speed Roofing Panel Assemblies[1]

PRODUCT	MINIMUM SHEATHING[1]	MINIMUM FASTENERS	INSTALLATION	CLASSIFICATION[2,3]
Vermont Slate Loc	15/32-inch Thickness Exposure 1 Grade Plywood	1-1/2-inch (38 mm) length galvanized ring shank roofing nail with minimum 3/8-inch (9.5 mm) head diameter	Maximum installation for 9-inch (229 mm) exposure with joints staggered between rows. Six (6) fasteners per Vermont Slate Loc panel applied at each prescribed fastener location marked on product.	F

Note 1: Attachment of sheathing to framing is outside the scope of this report and is to be suitable for resisting wind uplift shown.
Note 2: Wind speed classification based on evaluation in accordance with ASTM D3161.
Note 3: See Table 1504.2 of the 2024 IBC and Table 1504.3.3 2023 FBC for maximum basic wind speeds for Classification F.

Table 4 – Roof Fire Classified Assemblies

System	Substrate	Approved Underlayment	Approved Roof Coverings	Installation Guidelines	Roof Classification
New Construction Or Reroof when existing roof is removed[1]	Minimum 15/32-inch-thick plywood	1: 2 layers of ASTM D226 Type II asphalt felt installed over the sheathing with offset joints minimum 6-inches (152 mm). 2: Install ASTM D226 Type II felt of 4'' width over all sheathing joints. Following, apply a full layer underlayment covering joint treatment and sheathing, with underlayment joints offset from sheathing joint treatment a minimum of 6-inches (152 mm).	Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc	See Sections 4.1, 4.2, 4.3	C

Note 1: Installation of the Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc products requires complete removal of existing roof coverings and underlayment prior to installation in accordance with Section 4.3 of this report.

Table 5 – Impact Rated Assemblies

Substrate	Approved Underlayment	Approved Roof Coverings	Installation Guidelines	Hail-Impact Classification
Minimum 15/32-inch-thick plywood	Unrestricted	Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc	See Section 4.1, 4.2 and 4.3	Class IV

9.0 PRODUCT DETAILS:

9.1 Profile Drawings

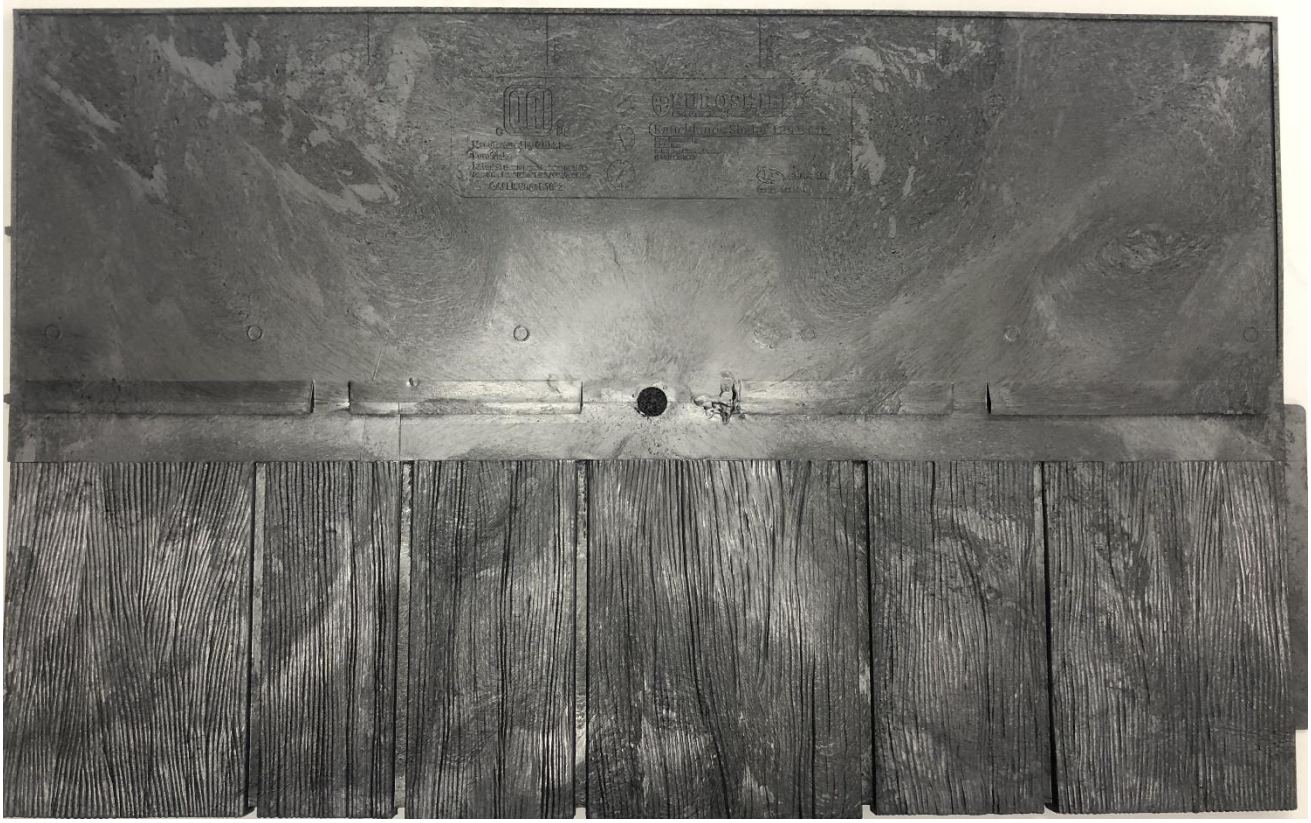


Figure 2. Ranchlands Shake Finished Product Details

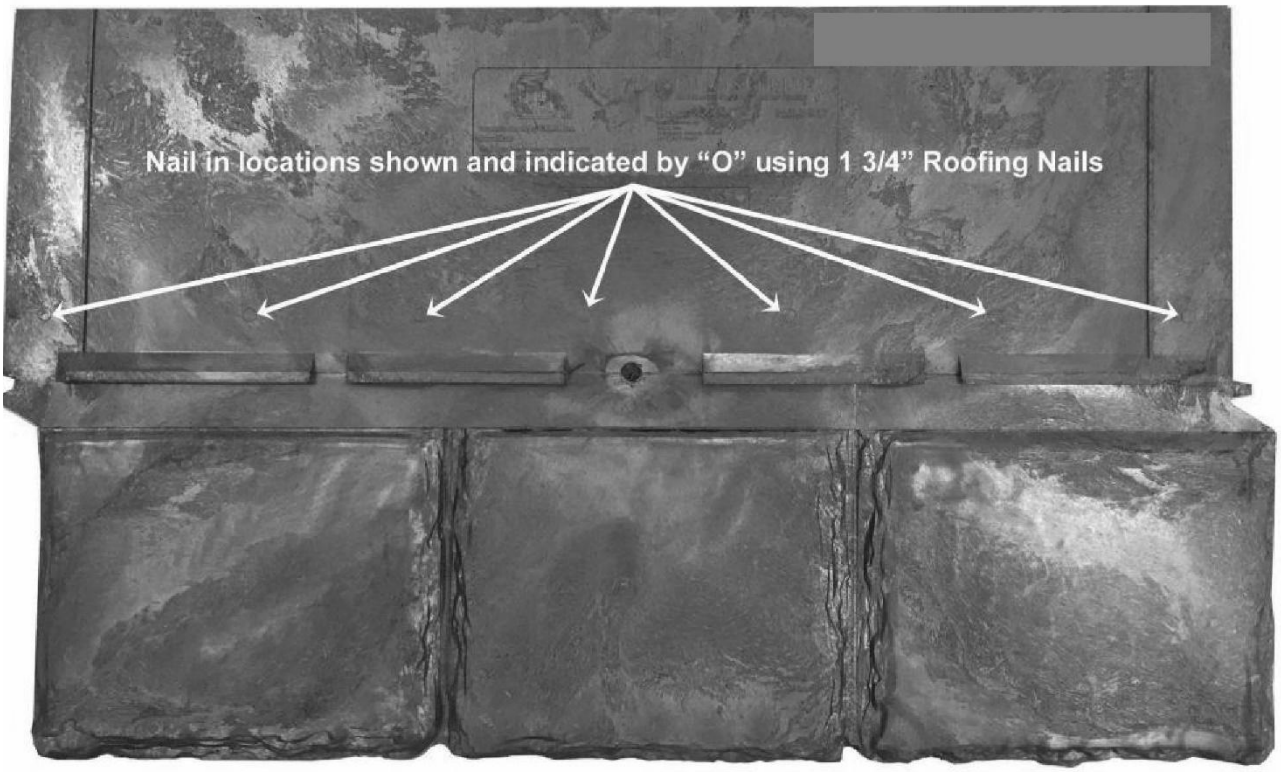


Figure 3. Rundle Slate Finished Product Details

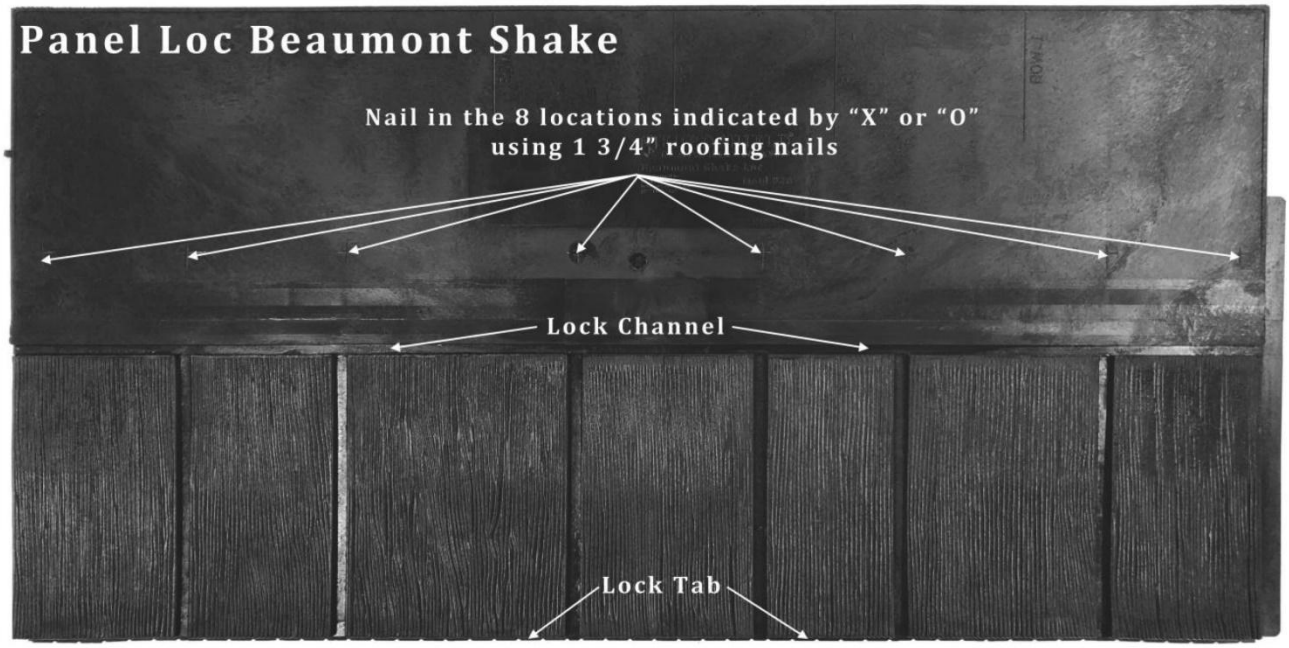


Figure 4. Beamont Shake Finished Product Details

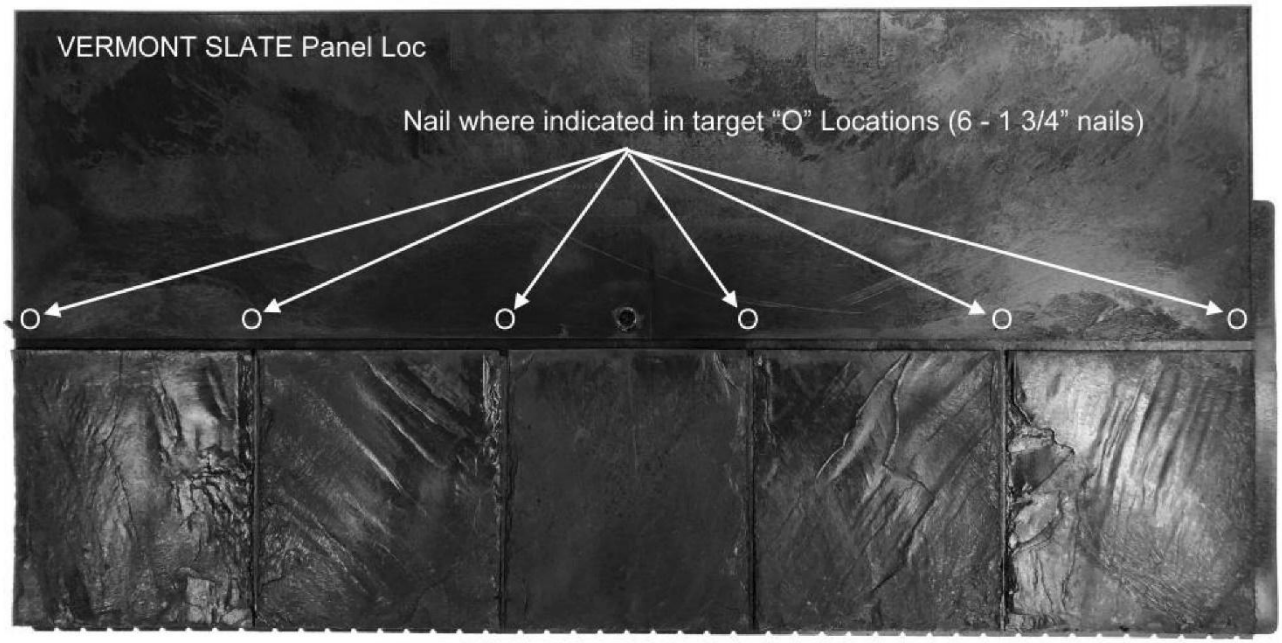


Figure 4. Vermont Slate Loc Finished Product Details

10.0 SUPPLEMENTAL CODES

10.1 2023 / 2020 Florida Building Code:

Ranchland Shake, Rundle Slate, Beaumont Shake, and Vermont Slate Loc products as detailed in Sections 2.0 through 9.0 of QAI CER_{US}-1013 comply with the 2023 / 2020 Florida Building Code (FBC) and 2023 / 2020 Florida Building Code, Residential (FRC) when installed in accordance with the applicable building codes and this report for use in areas not defined as high velocity hurricane zones (HVHZ) for applications as outlined in this report.

Wind uplift performance has been evaluated for the noted products in accordance with Section 1504.3 of the 2023 FBC.

11.0 ELIGIBILITY OF REPORT

QAI's Code Evaluation Report complies with the 2021 / 2018 / 2015 IBC Section 104.11 *Alternative materials, design and methods of construction and equipment* subsection 104.11.1 *Research Reports*. Supporting data has been evaluated by QAI for compliance of the noted materials and assemblies to the applicable code by QAI, and *approved* source as detailed below.

The attached report has been reviewed by a QAI Registered Professional Engineer approved by the specific state Board of Professional Engineers noted on the specific P.E. seal(s).

Per section 1703 of the IBC, QAI is an independent third-party testing, inspection and certification agency accredited by the International Accreditation Service, Inc. (IAS) for this specific scope (see IAS PCA-118). QAI can confirm that based on its IAS accreditation it meets IBC Section 1703.1 on Independence, Section 1703.1.2 on Equipment and Section 1703.1 on Personnel.

This Evaluation report has been designed to meet the performance requirements of IBC Section 1703.4 and contains the required information to show the product, material or assembly meets the applicable code requirements.

The product is labeled per section IBC 1703 and subject to follow-up inspection per IBC 1703.6 using QAI IAS accredited ISO/IEC 17020 inspection program (see IAS AA-723).

For more information regarding QAI Laboratories, please visit www.qai.org.

The above is an example of the QAI registered Listing mark. The Listing mark may only be used by the Report Holder per the QAI service agreement on products defined in this report. The 'us' indicator in the 4 o'clock position indicates the product complies with the properties evaluated with limitations outlined in this report for use in the US market. A 'c' indicator in the 8 o'clock position indicates the product has been evaluated for use in the Canadian market.

11.0 REFERENCED STANDARDS

ASTM D3161/D3161M *Test Method for Wind Resistance of Steep Slope Roofing Products (Fan Induced Method)*.
ASTM E108 *Standard Test Methods for Fire Tests of Roof Coverings.*
ASTM G155 *Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials*.
ASTM D635 *Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position*.
ASTM D1929 *Test Method for Determining Ignition Temperature of Plastics*.
TAS 125 *Standard Requirements for Metal Roofing Systems*.
TAS 100 *Test Procedure for Wind and Wind Driven Rain Resistance of Discontinuous Roof Systems.*
UL 2218 *Standard for Safety Impact Resistance of prepared Roof Covering Materials*.
ICC-ES AC07 *Acceptance Criteria for Special Roofing Systems*.
ASCE 7 *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*.