



**EXTERIOR RESEARCH & DESIGN, LLC.**

*Certificate of Authorization #9503*

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**EVALUATION REPORT**

**TAMKO Building Products, Inc.**

PO Box 1404

Joplin, MO 64802

**(417) 624-6644**

**Evaluation Report T32770.04.10-R5**

**FL4103-R10**

**Date of Issuance: 04/21/2010**

**Revision 5: 10/12/2017**

**SCOPE:**

This Evaluation Report is issued under **Rule 61G20-3** and the applicable rules and regulations governing the use of construction materials in the State of Florida. The documentation submitted has been reviewed by Robert Nieminen, P.E. for use of the product under the Florida Building Code and Florida Building Code, Residential Volume. The products described herein have been evaluated for compliance with the **6<sup>th</sup> Edition (2017) Florida Building Code** sections referenced herein.

**DESCRIPTION: TAMKO Roof Ventilation Products**

**LABELING:** Labeling shall be in accordance with the requirements the Accredited Quality Assurance Agency noted herein.

**CONTINUED COMPLIANCE:** This Evaluation Report is valid until such time as the named product(s) changes, the referenced Quality Assurance documentation changes, or provisions of the Code that relate to the product change. Acceptance of this Evaluation Report by the named client constitutes agreement to notify Robert Nieminen, P.E. if the product changes or the referenced Quality Assurance documentation changes. Trinity|ERD requires a complete review of this Evaluation Report relative to updated Code requirements with each Code Cycle.

**ADVERTISEMENT:** The Evaluation Report number preceded by the words "Trinity|ERD Evaluated" may be displayed in advertising literature. If any portion of the Evaluation Report is displayed, then it shall be done in its entirety.

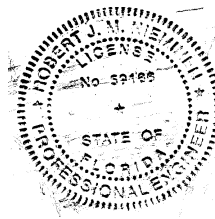
**INSPECTION:** Upon request, a copy of this entire Evaluation Report shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This Evaluation Report consists of pages 1 through 6.

**Prepared by:**

**Robert J.M. Nieminen, P.E.**

*Florida Registration No. 59166, Florida DCA ANE1983*



The facsimile seal appearing was authorized by Robert Nieminen, P.E. on 10/12/2017. This does not serve as an electronically signed document.

**CERTIFICATION OF INDEPENDENCE:**

1. Trinity|ERD does not have, nor does it intend to acquire or will it acquire, a financial interest in any company manufacturing or distributing products it evaluates.
2. Trinity|ERD is not owned, operated or controlled by any company manufacturing or distributing products it evaluates.
3. Robert Nieminen, P.E. does not have nor will acquire, a financial interest in any company manufacturing or distributing products for which the evaluation reports are being issued.
4. Robert Nieminen, P.E. does not have, nor will acquire, a financial interest in any other entity involved in the approval process of the product.
5. This is a building code evaluation. Neither Trinity|ERD nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.

**ROOFING COMPONENT EVALUATION:**

**1. SCOPE:**

**Product Category:** Roofing

**Sub-Category:** Roofing Accessories that are an Integral Part of the Roofing System

**Compliance Statement:** TAMKO Roof Ventilation Products, as produced by TAMKO Building Products, have demonstrated compliance with the following sections of the Florida Building Code. Compliance is subject to the Installation Requirements and Limitations / Conditions of Use set forth herein.

**2. CODE SECTIONS:**

<u>Section</u>	<u>Property</u>	<u>Standard</u>	<u>Year</u>
1504.3	Wind	ASTM E330	2002
1506.5 / 2304.10.5	Corrosion Resistance (of nails)	ASTM A153	2009
1523.6.5.2.13	Wind Driven Rain	TAS 100(A)	1995
1523.6.5.2.13.1	Physical Properties	TAS 110	2000
2615.2	Weatherometer	ASTM G155	2005

**3. REFERENCES:**

<u>Entity</u>	<u>Examination</u>	<u>Reference</u>	<u>Date</u>
ATI (TST 1558)	ASTM E330-02	A8000.01-109-44	04/21/2011
PRI (TST 5878)	TAS 100(A)-95	BOI-01-02-01	12/13/2000
PRI (TST 5878)	TAS 110-00	BOI-003-02-01	05/15/2001
PRI (TST 5878)	TAS 100(A)-95	BOI-012-02-03	08/07/2007
PRI (TST 5878)	TAS 110-00	BOI-012-02-01	03/14/2008
ETC (TST 2411)	TAS 110-00	ETC-01-718-10361.0	05/02/2001
ETC (TST 2411)	TAS 110-00	ETC-07-718-20026.0	09/15/2007
Benjamin Obdyke	Data Release Letter	Data Release Letter	11/19/2012
Benjamin Obdyke	Data Release Letter	Data Release Letter	01/29/2016
Benjamin Obdyke	Corrosion Resistance (of nails)	Notice of Specification	02/29/2016
ATI (QUA1844)	Quality Control	Service Confirmation	Exp. 12/31/2018

**4. PRODUCT DESCRIPTION:**

- 4.1 **CoolRidge<sup>®</sup> Sectional Ridge Vent (with and without filter)** is an injection-molded polypropylene sectional ridge vent product designed to ventilate attic space when used in conjunction with soffit vents. The product measures 14¾-inch wide, 48-inch long and 13/16-inch thick. The published net free ventilation area is 18 in<sup>2</sup> per lineal foot.
- 4.2 **Xtractor Vent<sup>®</sup> XLP Turbo** is a externally baffled, rolled ridge vent designed to ventilate attic space when used in conjunction with soffit vents. The product measures 14.75-inch wide and 5/8-inch thick in 25 ft long rolls. The published net free ventilation area is 12 in<sup>2</sup> per lineal foot.
- 4.3 **Roll-Vent<sup>®</sup>** is a continuous, rolled ridge vent designed to ventilate attic space when used in conjunction with soffit vents. The product measures 10.5-inch wide and min. 0.9-inch thick in 20 or 50 ft long rolls. The published net free ventilation area is 18 in<sup>2</sup> per lineal foot.
- 4.4 **Rapid Ridge<sup>®</sup>** is a nail gun-able, continuous, rolled ridge vent designed to ventilate attic space when used in conjunction with soffit vents. The product measures 10.5-inch wide and min. 0.625-inch thick in 20 or 50 ft long rolls. The published net free ventilation area is 12.5 in<sup>2</sup> per lineal foot.

**5. LIMITATIONS:**

5.1 This is a building code evaluation. Neither Trinity|ERD nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.

5.2 This Evaluation Report is not for use in FBC HVHZ jurisdictions.

5.3 **Minimum Roof Slopes:**

Product	Minimum Pitch (Slope)
CoolRidge <sup>®</sup> Sectional Ridge Vent	3:12 (14°)
Xtractor Vent <sup>®</sup> XLP Turbo	3:12 (14°)
Roll-Vent <sup>®</sup>	3:12 (14°)
Rapid Ridge <sup>®</sup>	3:12 (14°)

5.3.1 For **CoolRidge<sup>®</sup> Sectional Ridge Vent**, **Roll-Vent<sup>®</sup>** or **Rapid Ridge<sup>®</sup>** installations above 12:12 pitch (45°) or **Xtractor Vent<sup>®</sup> XLP Turbo** installations above 16:12 pitch (53°) contact **TAMKO Building Products** Technical Services Department.

5.4 The maximum mean roof height for **CoolRidge<sup>®</sup> Sectional Ridge Vent** and **Xtractor Vent<sup>®</sup> XLP Turbo** shall be 33 ft, when using **TAMKO Building Products** standard attachment procedures.

5.5 **Maximum Allowable Design Pressures:** The following performance levels, for enhanced attachment, may be utilized for projects where the maximum mean roof height exceeds 33 ft. The Allowable Design Pressure shall meet or exceed critical design pressure determined by a qualified design professional in accordance with **FBC Chapter 16**. No rational analysis is permitted.

Product	Substrate	Allowable Design Pressure (psf)
CoolRidge <sup>®</sup> Sectional Ridge Vent	Min. 3/8-inch plywood	-180
Xtractor Vent <sup>®</sup> XLP Turbo	Min. 3/8-inch plywood	-220
Roll-Vent <sup>®</sup>	Min. 3/8-inch plywood	-160
Rapid Ridge <sup>®</sup>	Min. 3/8-inch plywood	-190

5.5.1 Allowable Design Pressure is the result of testing for wind load resistance based on allowable wind loads, and reflects the ultimate passing pressure divided by 2 (the 2 to 1 margin of safety per **FBC 1504.9** has already been applied). Refer to **FBC 1609** for determination of design wind loads.

5.6 **CoolRidge<sup>®</sup> Sectional Ridge Vent**, **Xtractor Vent<sup>®</sup> XLP**, **Roll-Vent<sup>®</sup>** and **Rapid Ridge<sup>®</sup>** are for use with asphalt-composition shingle roofs only.

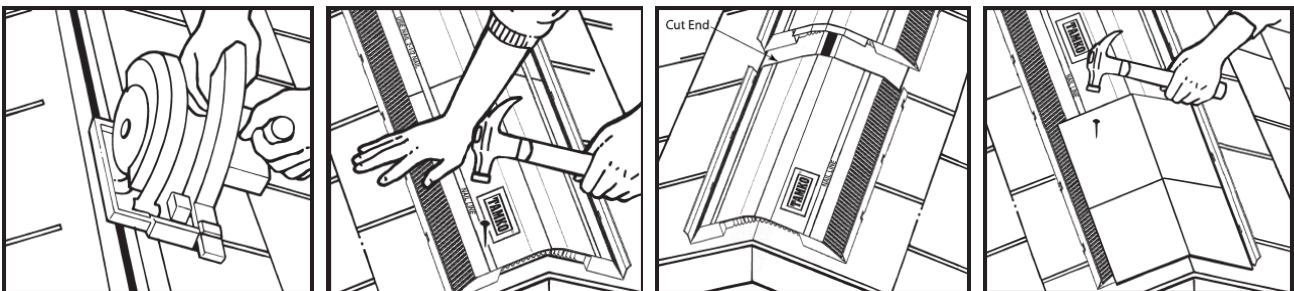
5.7 Installation shall result in minimum net free ventilation area requirements set forth in **FBC 1203.2**. When more than one level of roof ridge existing over a single attic space, use ridge vents only at the high ridge.

**6. INSTALLATION:**

6.1 **TAMKO Roof Ventilation Products** shall be installed in accordance with **TAMKO Building Products** published installation requirements subject to the Limitations set forth in Section 5 herein and the specifics noted below.

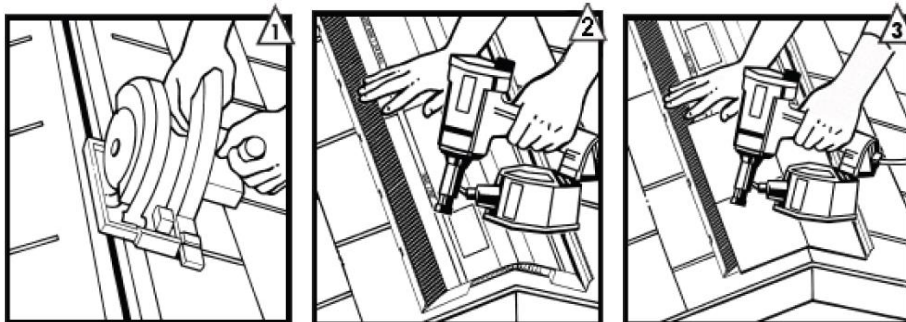
**6.2 COOLRIDGE® SECTIONAL RIDGE VENT:**

- 6.2.1 Cut a slot in plywood along roof ridge 2-inch wide (1-inch on each side). If ridge beam is present, cut slot 1-inch wide on each side of ridge beam. Allow for a closed area of sheathing 12-inch at both ends of ridge.
- 6.2.2 Place first piece of vent with female end 1-inch in from gable end and use centering line for proper alignment along peak. NOTE: In cold weather, allow 1/8-inch gap between vent sections for expansion.
- 6.2.2.1 Standard Attachment (max. 33 ft mean roof height): Fasten using at least two corrosion resistant nails at each end and in the middle of section in nail line area (2½-inch minimum nail length). More may be required on steeper slopes to seat properly. Continue installing additional pieces along ridge sliding female end over male end, aligning using centering line. Nails should penetrate sheathing a minimum of ¾-inch.
- 6.2.2.2 Enhanced Attachment (height limitation based on calculated wind loads): Fasten using min. 0.125-inch shank diameter, min. 0.410-inch head diameter, min. 2.5-inch long corrosion resistant roofing nails spaced 24-inch o.c. on either side of the ridge slot. Continue installing additional pieces along ridge sliding female end over male end, aligning using centering line. Nails should penetrate sheathing a minimum of ¾-inch.
- 6.2.2.3 If installing on dimensional or architectural shingles on new construction, the underlayment shall be left approximately 6-inch long at roof ridge and folded back under where the vent will be installed, so that vent is installed on top of the underlayment which is over the shingles. Alternatively, or in re-roofing, apply polyurethane roof sealant between low areas of shingle and baffle of vent after installation
- 6.2.3 When reaching the other end, the last vent section may need to be cut to length. End plugs are provided every 12-inch on underside of the product. Measure amount needed to install to within 1-inch of gable end. Cut that length in from end of vent section and flip around so that end plug is at gable end. Allow male tab from previous piece to slide under last piece and nail in place.
- 6.2.4 Place first cap shingle over vent so that it overhangs at least 1-inch over end of vent section. Install with min. 0.125-inch shank diameter, min. 0.410-inch head diameter, min. 2.5-inch long corrosion resistant roofing nails in nail line area as you work your way down the roof. Nails should penetrate sheathing a minimum of ¾-inch. Cut last cap shingle so that it overhangs vent 1-inch at other gable end.
- 6.2.5 **Notes:**  
 Optionally, you may install cap shingles on each piece as you go along, taking care to assure proper alignment.  
 Lines across top of product indicate where the end plugs are on the underside (every 12-inch). There is no need to flip the last piece if you measure and plan ahead to install on an even foot increment.  
 The nail line area is completely free from obstructions except where the end plugs are (unlike other sectional ridge vents that can have nails deflect off of supports). By using the end plug indicators on top of product, you can easily avoid nails through the end plugs.



**6.3 XTRACTOR VENT® XLP TURBO:**

- 6.3.1 Cut a slot in plywood along the roof ridge 1½-inch wide (¾-inch on each side). If ridge beam is present, cut slot ¾-inch wide on each side of ridge beam. Allow for a closed area of sheathing 12-inch at both ends of ridge.
- 6.3.2 Apply a ¼-inch bead of polyurethane roof sealant to the underside of the entire perimeter of the vent and seal to the underlying shingles. Place beginning female end vent 1-inch in from gable end and use center line for proper alignment along peak.
- 6.3.2.1 Standard Attachment (max. 33 ft mean roof height): Fasten using at least two corrosion resistant nails at each end and in middle of roll in nail line area (1¾-inch minimum nail length) spacing approximately every 12 inches. Nails should penetrate sheathing a minimum of ¾-inch. More nails may be required on steeper slopes to seat properly. Continue installing additional rolls as needed along ridge sliding female end over male end, aligning using centering line. When reaching the other end, cut vent roll to 1-inch from gable end and nail in place. End plugs are provided every 6-inch on the underside of the product.
- 6.3.2.2 Enhanced Attachment (height limitation based on calculated wind loads): Fasten using min. 0.125-inch shank diameter, min. 0.410-inch head diameter, min. 1.75-inch long roofing corrosion resistant nails spaced 24-inch o.c. on either side of the ridge slot. Nails should penetrate sheathing a minimum of ¾-inch. Continue installing additional pieces along ridge sliding female end over male end, aligning using centering line. When reaching the other end, cut vent roll to 1-inch from gable end and nail in place. End plugs are provided every 6-inch on the underside of the product.
- 6.3.3 Place first cap shingle over vent so that it overhangs at least 1-inch over end of vent roll. Install with min. 0.125-inch shank diameter, min. 0.410-inch head diameter, min. 1.75-inch long corrosion resistant roofing nails provided in nail line area as you work your way down the roof. Nails should penetrate sheathing a minimum of ¾-inch. Cut last cap shingle so that it over hangs vent 1-inch at other gable end.



**6.4 ROLL-VENT<sup>®</sup> :**

- 6.4.1 Cut a slot in plywood along the roof ridge 3½-inch wide (1¾-inch on each side). If ridge beam is present, cut slot 1¾-inch wide on each side of ridge beam. Allow for a closed area of sheathing 18-inch at both ends of ridge.
- 6.4.2 Loosen approximately 6-inch of nylon matrix from the fabric and cut out with snips. Create an end-cap by folding fabric towards the center at each side, then up and over the nylon matrix so it covers the end of the vent.
- 6.4.3 Place end-cap at gable end, centered over the slot and use the center line for proper alignment along peak. Apply a ¼-inch bead of polyurethane roof sealant to the underside of the entire perimeter of the vent and seal to the underlying shingles, and fasten as follows:
  - 6.4.3.1 Enhanced Attachment (height limitation based on calculated wind loads): Fasten using min. 0.125-inch shank diameter, min. 0.410-inch head diameter, min. 2.5-inch long corrosion resistant roofing nails spaced 24-inch o.c. on either side of the ridge slot. Nails should penetrate sheathing a minimum of ¾-inch.
- 6.4.4 Place first cap shingle over vent so that it overhangs at least 1-inch over end of vent roll. Install with min. 0.125-inch shank diameter, min. 0.410-inch head diameter, min. 2.5-inch long corrosion resistant roofing nails located 2.5-inch from each cap shingle edge. Nails should penetrate sheathing a minimum of ¾-inch.

**6.5 RAPID RIDGE<sup>®</sup> :**

- 6.5.1 Cut a slot in plywood along the roof ridge 3-inch wide (1½-inch on each side). If ridge beam is present, cut slot 1½-inch wide on each side of ridge beam. Allow for a closed area of sheathing 18-inch at both ends of ridge.
- 6.5.2 Loosen approximately 6-inch of nylon matrix from the fabric and cut out with snips. Create an end-cap by folding fabric towards the center at each side, then up and over the nylon matrix so it covers the end of the vent.
- 6.5.3 Place end-cap at gable end, centered over the slot and use the center line for proper alignment along peak. Apply a ¼-inch bead of polyurethane roof sealant to the underside of the entire perimeter of the vent and seal to the underlying shingles, and fasten as follows:
  - 6.5.3.1 Enhanced Attachment (height limitation based on calculated wind loads): Fasten using min. 0.125-inch shank diameter, min. 0.410-inch head diameter, min. 1.75-inch long collated corrosion resistant roofing nails spaced 24-inch o.c. on either side of the ridge slot. Nails should penetrate sheathing a minimum of ¾-inch.
- 6.5.4 Place first cap shingle over vent so that it overhangs at least 1-inch over end of vent roll. Install with min. 0.125-inch shank diameter, min. 0.410-inch head diameter, min. 1.75-inch long corrosion resistant roofing nails located 2.5-inch from each cap shingle edge. Nails should penetrate sheathing a minimum of ¾-inch.

**7. BUILDING PERMIT REQUIREMENTS:**

As required by the Building Official or Authority Having Jurisdiction in order to properly evaluate the installation of this product.

**8. MANUFACTURING PLANTS:**

Perry, MO

**9. QUALITY ASSURANCE ENTITY:**

Architectural Testing, Inc. – QUA1844; (717) 764-7700

**- END OF EVALUATION REPORT -**