# **UL Evaluation Report**

## **UL ER15072-01**

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**UL Category Code: ULFD** 

**CSI MasterFormat®** 

DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION Sub-level 2: 07 70 00 – Roof and Wall Specialties and Accessories

Sub-level 3: 07 72 00 - Roof Accessories Sub-level 4: 07 72 26 - Ridge Vents

#### **COMPANY:**

GAF 1 CAMPUS DR. PARSIPPANY, NJ 07054 www.gaf.com

#### 1. SUBJECT:

## 1.1 Ridge Vents

COBRA® RIGID VENT 3<sup>™</sup>, COBRA® SNOW COUNTRY<sup>™</sup>, COBRA® SNOW COUNTRY ADVANCED<sup>™</sup>, COBRA® RIDGE RUNNER<sup>®</sup>, COBRA® EXHAUST VENT FOR ROOF RIDGE – HAND NAIL, COBRA® EXHAUST VENT FOR ROOF RIDGE – NAIL GUNABLE

1.2 Hip Vents

**COBRA® HIP VENT** 

1.3 Eave Vents

COBRA® INTAKEPRO™ ROOFTOP INTAKE VENT

#### 2. SCOPE OF EVALUATION

- 2018, 2015, 2012, 2009, and 2006 *International Building Code* ® (IBC)
- 2018, 2015, 2012, 2009, and 2006 International Residential Code ® (IRC)
- ICC-ES Acceptance Criteria for Attic Vents (AC132), Dated February 2010 (Editorially revised January 2018)
- ICC-ES Acceptance Criteria for Quality Documentation (AC10), Dated January 2019

## The products were evaluated for the following properties:

- Net-free Ventilation Area (AC132, Section 4.1)
- Rate of Burning (ASTM D635)
- Ignition Properties (ASTM D1929)
- Dust Exposure (AC132, Section 4.2)
- Temperature Cycling (AC132, Section 4.3)
- Weathering Test, (ASTM D4329)
- Wind Driven Rain (FBC (HVHZ) TAS 100(A))

## 3. REFERENCED DOCUMENTS

- ICC-ES Acceptance Criteria for Attic Vents (AC132), dated February 2010 (editorially revised January 2018)
- ICC-ES Acceptance Criteria for Quality Documentation (AC10), dated January 2019
- ASTM D635-14, Standard Test Method for Rate of Burning and/or Extent and Time of Burning of plastics in a Horizontal Position
- ASTM D1929-16, Test Method for Determining Ignition Properties of Plastics
- ASTM D4329-13, Standard Practice for Florescent Ultraviolet (UV) Lamp Apparatus Exposure of Plastics
- Florida Building Code (High Velocity Hurricane Zones) Test Application Standard TAS 100(A)-95

#### 4. USES

The Cobra® Ridge Vent 3<sup>™</sup>, Cobra® Snow Country<sup>™</sup>, Cobra® Snow Country Advanced<sup>™</sup>, Cobra® Ridge Runner<sup>®</sup>, Cobra® Exhaust Vent for Roof Ridge – Hand Nail and Cobra® Exhaust Vent for Roof Ridge – Nail Gunable are ridge vents for use in conjunction with eave, cornice, and soffit vents to provide natural ventilation of enclosed attic and rafter spaces in accordance with 2018 IBC Section 1202.2 and 2015, 2012, 2009 and 2006 IBC Section 1203.2 or 2018, 2015, 2012, 2009 and 2006 Section R806. These vents are intended for use with asphalt shingles.

The Cobra® Hip Vent is an exhaust vent for hip roofs for use in conjunction with eave, cornice, and soffit vents to provide natural ventilation of enclosed attic and rafter spaces in accordance with 2018 IBC Section 1202.2 and 2015, 2012, 2009 and 2006 IBC Section 1203.2 or 2018, 2015, 2009 and 2006 IRC Section R806. These vents are intended for use with asphalt shingles.

The Cobra® IntakePro™ Rooftop Intake Vent is an eave edge attic intake vent for use in conjunction with ridge or other exhaust vents to provide natural ventilation of enclosed attic and rafter spaces in accordance with 2018 IBC Section 1202.2 and 2015, 2012, 2009 and 2006 IBC Section 1203.2 or 2018, 2015, 2012, 2009 and 2006 IRC Section R806. These vents are intended for use with asphalt shingles.

## 5. PRODUCT DESCRIPTION

#### 5.1 General:

**5.1.1** Cobra® Rigid Vent 3<sup>™</sup> is nominally 11-1/2 in. or 13-3/4 in. wide by 48 in. long without a filter media having a 9 in. or 11-1/2 in. width ridge cap area and supplied with 3-inch ring shank roofing nails for installation.

- **5.1.2 Cobra® Snow Country™** is nominally 13-3/4 in. wide by 48 in. long with a fiberglass filter media affixed to the vent.
- **5.1.3** Cobra® Snow Country Advanced™ is nominally 11-1/2 in. or 13-3/4 in. wide by 48 in. long with a fiberglass filter media affixed to the vent having a 9 in. or 11-/2 in. width ridge cap area supplied with 3-inch ring shank roofing nails for installation.
- **5.1.3 Cobra**® **Ridge Runner**® is nominally 11-1/2 in. wide by 20 feet long roll with a fiberglass filter media supplied with 1-3/4 in. coil nails.
- **5.1.4** Cobra® Exhaust Vent for Roof Ridge Hand Nail is nominally 3/4 in. thick by 10-1/2 in., or 11-3/4 in. wide by 20 feet or 50 feet long roll and supplied with 2-1/2 in. Smart Nails™ for hand-nailing.
- **5.1.5** Cobra® Exhaust Vent for Roof Ridge Nail Gunable is nominally 5/8 in. thick by 10-1/2 in. wide by 20 feet or 50 feet long and supplied with 1-3/4 in. coil nails for nail guns.
- **5.1.6 Cobra® Hip Vent** is nominally 3/4 in. thick by 11-3/4 in. wide by 48 in. long with a fiberglass filter media and composite material sealing layer affixed to the vent and supplied with 1-3/4 in. coil nails for nail guns.
- **5.1.7** Cobra® IntakePro<sup>™</sup> Rooftop Intake Vent is a tapered product and has a nominal thickness range from 0 in. up to 13/16 in. thick by 11 in. wide by 20 feet long roll and supplied with 1-3/4 in. coil nails for nail guns.

## NET FREE VENTILATION AREA (NFVA)

Product	in.²/ft
Cobra® Rigid Vent 3™	18.0
Cobra® Snow Country™	18.0
Cobra® Snow Country Advanced™	18.0
Cobra® Ridge Runner®	12.5
Cobra® Exhaust Vent for Roof Ridge - Hand Nail	14.7
Cobra® Exhaust Vent for Roof Ridge - Nail Gunable	12.3
Cobra® Hip Vent	9.3
Cobra® IntakePro™ Rooftop Intake Vent	9.0

## 5.2 Material:

The Cobra® Rigid Vent 3<sup>™</sup>, Cobra® Snow Country<sup>™</sup>, Cobra® Snow Country Advanced<sup>™</sup>, Cobra® Ridge Runner<sup>®</sup> and Cobra® Hip Vent are constructed of injection molded polypropylene classified as Class CC2 plastic under 2018, 2015, 2012, 2009 and 2006 IBC Section 2606.4.

The Cobra® Exhaust Vent for Roof Ridge – Hand Nail and Cobra® Exhaust Vent for Roof Ridge – Nail Gunable are constructed of polyester fibers classified as Class CC1 plastic under 2018, 2015, 2012, 2009 and 2006 IBC Section 2606.4.

Cobra® IntakePro™ Rooftop Intake Vent is constructed of polymer fibers classified as Class CC2 plastic under 2018, 2015, 2012, 2009 and 2006 IBC Section 2606.4.

#### 6. INSTALLATION

## 6.1 Design:

The required ventilation area must be determined and sufficient ridge, hip, or eave intake vent quantity must be installed to provide ventilation in accordance with 2018 IBC Section 1202.2 and 2015, 2012, 2009 and 2006 IBC Section 1203.2 or 2018, 2015, 2012, 2009 and 2006 IRC Section R806. Product packaging shall be marked with venting area the product provides when installed in accordance with the manufacturer's installation instructions.

## 6.2 Wind Resistance:

The ridge, hip and eave intake vents are limited to be installed:

- Under the 2018 IBC and 2018 IRC in areas subject to a maximum basic design wind speed of 130 mph (209 km/hr) on structures having a mean roof height of 40 feet (12.2 m) or less in Exposure D areas.
- Under the 2015 and 2012 IBC and 2015 IRC in areas subject to a maximum ultimate design wind speed of 130 mph (209 km/hr) on structures having a mean roof height of 40 feet (12.2 m) or less in Exposure D areas.
- Under the 2009 and 2006 IBC and 2012, 2009 and 2006 IRC, in areas subject to a maximum basic wind speed of 100 mph (161 km/h), on structures having a maximum mean roof height of 40 feet (12.2 m) or less in Exposure D areas.

#### 6.3 Installation:

The ridge, hip and eave intake vents shall be installed in accordance with the applicable code, this report and the manufacturer's published installation instructions.

The manufacturer's published installation instructions shall be available at all times on the jobsite during installation.

## 6.3.1 Cobra® Rigid Vent 3™, Cobra® Snow Country™, and Cobra® Snow Country Advanced™:

The roof slope must be a minimum of 3:12 (25 percent slope and a maximum 16:12 (133 percent slope).

Cobra® Rigid Vent 3<sup>™</sup>, Cobra® Snow Country<sup>™</sup>, and Cobra® Snow Country Advanced<sup>™</sup> must be installed in accordance with the manufacturer's detailed installation instructions, published by GAF available at:

(GAF Cobra® Ridge Vents Application Instructions Link, Updated 7/19)

#### 6.3.2 Cobra® Ridge Runner®:

The roof slope must be a minimum of 3:12 (25 percent slope) and a maximum 16:12 (133 percent slope).

Cobra® Ridge Runner® must be installed in accordance with the manufacturer's detailed installation instructions, published by GAF available at:

(GAF Cobra® Ridge Runner® Ridge Vent Application Instructions Link, Updated 7/19)

## 6.3.3 Cobra® Exhaust Vent for Roof Ridge – Hand Nail and Cobra® Exhaust Vent for Roof Ridge – Nail Gunable:

The roof slope must be a minimum of 2:12 (17 percent slope) and a maximum 20:12 (166 percent slope).

Cobra® Exhaust Vent must be installed in accordance with the manufacturer's detailed installation instructions, published by GAF available at:

(Cobra® Exhaust Vent for Roof Ridge - Instruction for Hand Nail Application Link, Updated 7/19)

(Cobra® Exhaust Vent for Roof Ridge - Instruction for Nail Gun Application Link, Updated 7/19)

## 6.3.4 Cobra® Hip Vent:

The roof slope must be a minimum of 3:12 (25 percent slope) and a maximum 12:12 (100 percent slope).

Cobra® Hip Vent must be installed in accordance with the manufacturer's detailed installation instructions, published by GAF available at:

(GAF Cobra® Hip Vent Application Instructions Link, Updated 8/15)

## 6.3.5 Cobra® IntakePro™ Rooftop Intake Vent:

The roof slope must be a minimum of 4:12 (33 percent slope).

Cobra® Intake Pro™ Rooftop Intake Vent must be installed in accordance with the manufacturer's detailed installation instructions, published by GAF available at:

(GAF Cobra® IntakePro™ Rooftop Intake Vent Application Instructions Link, Updated 12/19)

## 6.4 Fire Classified Roof Covering:

The ridge, hip and eave intake vents are allowed to be installed with Listed (Classified) asphalt shingle roof coverings provided the following conditions are met:

- 1. The ridge, hip and eave intake vents must not be installed on roofs that are required to have a fire resistance rating unless the building is equipped throughout with an automatic sprinkler system in accordance with the 2018, 2015, 2012, 2009 and 2006 IBC Section 903.3.1.1.
- 2. The maximum area of a continuous ridge, hip, and eave intake vents is 300 square feet (27.9 m2) and the aggregate area of the vents and any light transmitting roof panels does not exceed 30 percent of the floor area served.
- 3. Individual attic, hip and eave intake vents must be separated from each other and any light transmitting roof panels by a distance of not less than 4 feet (1220 mm) measured in a horizontal plane, unless the building is equipped throughout with automatic sprinkler system in accordance with 2018, 2015, 2012, 2009 and 2006 IBC Section 903.3.1.1.
- 4. The ridge, hip and eave intake vents must not be installed within 6 feet (1830 mm) of any exterior wall required by 2018, 2015, 2012 and 2009 IBC Section 705.8 (Section 704.8 of the 2006 IBC) to have protected wall openings.

#### 7. CONDITIONS OF USE

The ridge, hip and eave intake vents described in this Report comply with, or are suitable alternatives to, what is specified in those codes listed in Section 2 of this Report, subject to the following conditions:

- 7.1 Materials and methods of installation shall comply with this Report and the manufacturer's published installation instructions. The manufacturer's published installation instructions must be available on the jobsite at all times during construction. In the event of a conflict between the installation instructions and this Report, this Report governs.
- 7.2 The ridge, hip and eave intake vents are limited to installation on roofs having a minimum and a maximum slopes specified in Section 6.3 of this report.
- 7.3 The minimum ventilation area and required percentage of area between eave or cornice vents and the opening provided by the ridge vent or hip vent required for concealed spaces must be calculated in accordance with the applicable code and submitted to the code official for approval.
- 7.4 The ridge, hip and eave intake vents are limited to installation with non-classified asphalt shingle roof coverings unless installed in accordance with Section 6.4.
- 7.5 The use of ridge, hip and eave intake vents are not permitted in Group H, I-2, and I-3 occupancies.
- 7.6 Where roof diaphragm continuity is affected by the installation of ridge, hip and eave intake vents roof diaphragm nailing requirements must be addressed in accordance with applicable code, and the vent installation must be approved by the code official.
- 7.7 See UL Product iQ™ database for Hip and Ridge Vents (<u>TGEW</u>), File R15072.
- 7.8 The products are manufactured by GAF under the UL LLC Classification and Follow-Up Service Program, which includes audits in accordance with quality elements of ICC-ES Acceptance Criteria for Quality Documentation, AC10.

#### 8. SUPPORTING EVIDENCE

- **8.1** Data in accordance with ICC-ES Acceptance Criteria for Attic Vents (AC132), Dated February 2010 (Editorially revised January 2018).
- **8.2** UL test reports and Classification in accordance with UL Subject 2582, Outline of Investigation for Hip and Ridge Vents. See UL Product Certification Category for Hip and Ridge Vents (TGEW), File R15072.
- **8.3** Manufacturer's descriptive product literature, including installation instructions.
- **8.4** Quality Documentation in accordance with ICC-ES Acceptance Criteria for Quality Documentation, AC10.

## 9. IDENTIFICATION

The ridge, hip and eave intake vents described in this Evaluation Report are identified by a marking bearing the report holder's name (GAF), the product name, the UL Classification Mark and the evaluation report number UL ER15072-01. The validity of this Evaluation Report is contingent upon this identification appearing on the product or the product packaging.

#### 10. USE OF UL EVALUATION REPORT

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