

ICC-ES Evaluation Report**ESR-1787**

Reissued September 1, 2009

This report is subject to re-examination in two years.www.icc-es.org | (800) 423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

DIVISION: 07—THERMAL AND MOISTURE PROTECTION
Section: 07720—Roof Accessories**REPORT HOLDER:****TRA-MAGE INC.**
1657 SOUTH 580 EAST
AMERICAN FORK, UTAH 84003
(801) 756-8666
www.tra-mage.com**ADDITIONAL LISTEE:****BARTILE, INC**
725 NORTH 1000 WEST
CENTERVILLE, UTAH 84014
(801) 295-3443**EAGLE TILE**
2352 NORTH LOCUST AVENUE
RIALTO, CALIFORNIA 92377
(714) 231-3602**LUDOWICI**
POST OFFICE BOX 69
NEW LEXINGTON, OHIO 43764
(800) 945-8453**EVALUATION SUBJECT:****FLEXVENT™ ALUMINUM AND COPPER ROLL ROOF
VENTILATION****1.0 EVALUATION SCOPE****Compliance with the following codes:**

- 2006 *International Building Code*® (IBC)
- 2006 *International Residential Code*® (IRC)
- 1999 *Standard Building Code*® (SBC)
- 1997 *Uniform Building Code*™ (UBC)

Properties evaluated:

- Net free ventilating area
- Weather resistance
- Wind uplift resistance

2.0 USES

FlexVent™ Aluminum and Copper Roll hip and ridge ventilation is a flexible material that is intended to be installed, in conjunction with eave, cornice or soffit vents, for the purpose of providing natural ventilation of enclosed attic and rafter spaces. The vent is intended for use with clay and concrete tile roof coverings. FlexVent™ may be used as part of a Class A, B or C roof covering assembly.

3.0 DESCRIPTION

FlexVent™ Aluminum and Copper Roll hip and ridge ventilation is a flexible, single-layer vent which is manufactured from copper or aluminum sheet and has a butyl adhesive strip along each edge on one side.

3.1 FlexVent Copper Roll:

The copper sheet from which the vent is manufactured has a thickness of 0.003 inch (0.08 mm). The copper sheet is punched with eighty openings per lineal inch of the vent for the 9-inch-wide (228 mm) vent and eighty-eight openings per lineal inch of vent for the 9.5-inch-(241 mm), 11-inch-(279 mm), 12⁵/₈-inch-(320 mm) and 15³/₄-inch-wide (400 mm) vents. The openings are each 0.080 inch by 0.12 inch (2.03 by 3.05 mm) in size. The product is formed to a final overall nominal thickness of 0.10 inch (2.59 mm). The material is manufactured in rolls 25 feet (7620 mm) long. The minimum net free ventilation area of the vent, when installed in accordance with this report, is 9.4 square inches per lineal foot (19,897 mm²/m) for the 9-inch-wide (228 mm) vent and 10.3 square inches per lineal foot (21,802 mm²/m) for the 9.5-, 11-, 12⁵/₈- and 15³/₄-inch-wide (228, 241, 279, 320 and 400 mm) vents.

3.2 FlexVent Aluminum Roll:

The aluminum sheet from which the vent is manufactured has a thickness of 0.006 inch (0.15 mm). The aluminum sheet is punched with eighty openings per lineal inch of the vent for the 9.5-inch-(241 mm), 11-inch-(279 mm), 12⁵/₈-inch-(320 mm) and 15³/₄-inch-wide (400 mm) vents. The openings are each 0.080 inch by 0.12 inch (2.03 by 3.05 mm) in size. The product is formed to a final overall nominal thickness of 0.10 inch (2.59 mm). The material is manufactured in rolls 25 feet (7620 mm) long. The minimum net free ventilation area of the vent, when installed in accordance with this report, is 9.4 square inches per lineal foot (19,897 mm²/m) for the 9-inch-wide (228 mm) vent and 10.3 square inches per lineal foot (21,802 mm²/m) for the 9.5-, 11-, 12⁵/₈- and 15³/₄-inch-wide (228, 241, 279, 320 and 400 mm) vents.

4.0 INSTALLATION

Installation of FlexVent™ flashing must comply with this report and the manufacturer's published installation instructions. The installation instructions must be available at the jobsite at all times during installation.

The minimum roof slope must be 3 units vertical in 12 units horizontal (3:12). The maximum roof slope must be 21:12. The minimum nominal width of the opening, measured horizontally, must be $\frac{1}{2}$ inch (12.7 mm) on each side of the roof ridge or from each edge of a ridge board, where present. The last 12 inches (305 mm) of sheathing, inside the exterior wall line at each end of the ridge, must be left uncut. The ridge vent must be unrolled over the roof covering, the protective strip on the butyl adhesive must be removed and the vent material positioned to completely cover the opening. Shorter lengths of roof vent material must be joined by overlapping the ends, with no gaps between sections.

The ridge vent material must be completely covered by the ridge tile. Ridge tiles must be nailed in place with No. 12 gage, corrosion-resistant, annular ring shank roofing nails, with minimum $\frac{3}{8}$ -inch-diameter (9.5 mm) heads. The nail length must be a minimum of $1\frac{1}{4}$ inches (32 mm) or as required to penetrate into the ridge board or sheathing $\frac{3}{4}$ inch (19.1 mm) or through the sheathing. Alternative fasteners may be used when the roof tile manufacturer has qualified the ridge tile nailing in a current ICC-ES evaluation report for installations where the maximum basic wind speed is 100 miles per hour (161 km/h) (3-second gust) [80 miles per hour (129 km/h) (fastest mile)], on structures a maximum of 40 feet in height, in Exposure D areas.

For installation in areas where the maximum basic wind speed does not exceed 100 miles per hour (161 km/h) (3-second gust) [80 miles per hour (129 km/h) (fastest mile)], on structures a maximum of 40 feet in height, in Exposure B areas, fasteners must be in accordance with the requirements of the applicable code or as set forth in the roof tile manufacturer's current ICC-ES evaluation report. Overlap of the ridge tiles must be in accordance with the roof covering manufacturer's instructions. The ridge vent, installed as described in this section, must be limited to installation in areas where the maximum basic wind speed is 100 miles per hour (161 km/h) (3-second gust) [80 miles per hour (129 km/h) (fastest mile)], on structures a maximum of 40 feet (12 192 mm) in height, in Exposure D areas.

5.0 CONDITIONS OF USE

The FlexVent™ Aluminum and Copper Roll hip and ridge ventilation described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 Installation must comply with the applicable code, the conditions of this report and the manufacturer's published installation instructions. In the event of a conflict between the manufacturer's instructions and this report, this report governs.
- 5.2 The ridge vent must be limited to installation on roofs with the minimum and maximum slopes set forth in Section 4.1 of this report.
- 5.3 The minimum ventilation area and required percentage of area between eave or cornice vents and the opening provided by the ridge vent required for the concealed spaces must be calculated in accordance with the requirements of the applicable code.
- 5.4 The vent material must be installed when the ambient and deck temperatures are 40°F (4.4°C) or greater.
- 5.5 The roof diaphragm nailing requirements must be addressed and the vent installation must be approved by the code official.
- 5.6 The ridge vent must be covered with concrete or clay roof tiles that comply with the requirements of the applicable code. The ridge vent may be used on all roof classification.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Attic Vents (AC132), dated June 2009.

7.0 IDENTIFICATION

Each carton or package of the FlexVent™ Aluminum and Copper hip and ridge flashing described in this report must be identified with the TRA-Mage, Inc., name and address, the product name, the size, and the evaluation report number (ESR-1787), and must include the installation instructions.