ICC-ES Evaluation Report

ESR-2071

Reissued June 2024

Subject to renewal June 2025

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION **Section: 07 72 26—Ridge Vents**	**REPORT HOLDER:** **AIR VENT, INC.**	**EVALUATION SUBJECT:** **SHFV (SHINGLEVENT II), SHFV7 (SHINGLEVENT II-7) AND SHFV9 (SHINGLEVENT II-9)** **ADDITIONAL LISTEE:** **TRI-BUILT MATERIALS GROUP, LLC**	

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2018, 2015, 2012, 2009, and 2006 *International Building Code*® (IBC)
- 2018, 2015, 2012, 2009, and 2006 *International Residential Code*® (IRC)
- 2013 *Abu Dhabi International Building Code* (ADIBC)†

†The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

Properties evaluated:

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

2.0 USES

SHFV (ShingleVent II), SHFV7 (ShingleVent II-7) and SHFV9 (ShingleVent II-9) are ridge vents installed in conjunction with eave, cornice or soffit vents, to provide natural ventilation of enclosed attic and rafter spaces in accordance with 2018 IBC Section 1202.2 [2015, 2012, 2009 and 2006 IBC Section 1203.2] or IRC Section R806, as applicable. The vents are intended for use with asphalt shingles.

3.0 DESCRIPTION

The ridge vents are constructed of injection-molded polypropylene plastic with thicknesses varying from 0.055 to 0.070 inch (1.40 to 1.75 mm). The vents incorporate a nonwoven fiberglass weather filter and are available in 4-foot lengths (1219 mm) with predrilled nail holes. See Figure 1 for an illustration of the ridge vent profiles, and Figure 2 for an isometric view.

3.1 SHFV (ShingleVent II):

SHFV (ShingleVent II) is manufactured with an overall thickness of 0.88 inch (22.4 mm) and a width of 13.8 inches (351 mm). The vent is fabricated with air slots on both sides, providing a net-free ventilation area (NFVA) of 18 square inches per lineal foot (3806 cm^2/m).

3.2 SHFV7 (ShingleVent II-7):

SHFV7 (ShingleVent II-7) is manufactured with an overall thickness of 0.83 inch (21.1 mm) and a width of 10 inches (254 mm). The vent is fabricated with air slots on both sides, providing a net-free ventilation area (NFVA) of 16 square inches per lineal foot (3384 cm^2/m).

3.3 SHFV9 (ShingleVent II-9):

SHFV9 (ShingleVent II-9) is manufactured with an overall thickness of 0.83 inch (21.1 mm) and a width of 11.3 inches (287 mm). The vent is fabricated with air slots on both sides, providing a net-free ventilation area (NFVA) of 16 square inches per lineal foot (3384 cm^2/m).

4.0 DESIGN AND INSTALLATION

4.1 Design:

The required ventilation area must be determined, and sufficient ventilating panels must be installed to provide ventilation in accordance with 2018 IBC Section 1202.2 [2015, 2012, 2009 and 2006 IBC Section 1203.2] and IRC Section R806. Each panel must be marked with the venting area it provides when installed in accordance with this report.

4.2 Installation:

Installation of SHFV (ShingleVent II), SHFV7 (ShingleVent II-7) and SHFV9 (ShingleVent II-9) must comply with this report, the manufacturer's published installation instructions and the requirements of the applicable code. The manufacturer's published installation instructions must be available at the jobsite at all times during installation.

SHFV (ShingleVent II) may be used where the minimum roof slope is 3 units vertical in 12 units horizontal (25 percent) and the maximum roof slope is 16 units vertical in 12 units horizontal (133 percent). SHFV7 (ShingleVent II-7) and SHFV9 (ShingleVent II-9) may be used where the minimum roof slope is 3 units vertical in 12 units horizontal (25 percent) and the maximum roof slope is 12 units vertical in 12 units horizontal (100 percent). Where there is a ridge board, ShingleVent sections are applied over vent openings measuring $^3/_4$ inch (19.1 mm) wide on each side of the ridge board. Where there is no ridge board, the sections are applied over an opening $1^1/_2$ inches (38.1 mm) wide that is centered at the ridge. The last 6 inches (152 mm) of sheathing, inside the exterior wall line at each end of the ridge, must be left uncut. The ridge vent must overlap the roof shingles and be positioned to completely cover the opening. The vents are centered over the slot opening and fastened to the roof deck with No. 11 gage, $2^1/_2$-inch-long-by-$^3/_8$-inch-diameter-head (64 by 9.5 mm), smooth shank, corrosion-resistant roofing nails placed through the predrilled holes on both sides of the vent. Ridge vents must be joined by butting the ends together, with no gaps between sections. When installation is performed in cold weather, a gap of $^1/_8$ inch (3.2 mm) between sections is recommended for thermal expansion. The ridge vent cap must be completely covered by the ridge shingles. Ridge shingles must be nailed in place with corrosion-resistant, No. 11 gage, $^3/_8$-inch-diameter-head (9.5 mm), galvanized annular ring shank roofing nails at a rate of six nails per shingle. The nails must be of sufficient length to penetrate into the sheathing a minimum of $^3/_4$ inch (19.1 mm) or through the sheathing, whichever is less. All the shingle cutouts and end pieces must be positioned such that no piece is more than 2 inches (51 mm) from a nail fastener.

4.3 Wind Resistance:

Under the 2018 IBC, when installation is in accordance with this report, the ridge vents are limited to use 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 IBC, 2012 IBC, 2018 IRC and 2015 IRC, when installation is in accordance with is this report, the ridge vents are limited to use 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 IBC,2006 IBC, 2012 IRC, 2009 IRC and 2006 IRC, when installation is in accordance with this report, the ridge vents are limited to a maximum basic wind speed of 100 mph (161 km/hr) (3-second gust) on structures with a maximum mean roof height of 40 feet (12 192 mm) in Exposure D areas.

5.0 CONDITIONS OF USE:

The SHFV (ShingleVent II), SHFV7 (ShingleVent II-7) and SHFV9 (ShingleVent II-9) attic vents described in this report comply with, or are suitable alternatives 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 this report, the manufacturer's published installation instructions and the applicable code. In the event of a conflict between the manufacturer's published installation instructions and this report, this report governs.

The ridge vents must be limited to installation on roofs with the minimum and maximum slopes stated in Section 4.2 of this report.

5.2 The minimum ventilation area and required percentage of area between eave or cornice vents and the opening provided by the ridge vent required for concealed spaces must be calculated in accordance with the requirements of the applicable code and submitted to the code official for approval.

5.3 The roof diaphragm nailing requirements must be addressed and the vent installation approved by the code official.

5.4 The ridge vents must be covered with asphalt roofing shingles that comply with the requirements of the applicable code. The ridge vents are limited to use on roofs where nonclassified roof coverings are permitted.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Attic Vents (AC132), dated February 2010, (editorially revised January 2018).

7.0 IDENTIFICATION

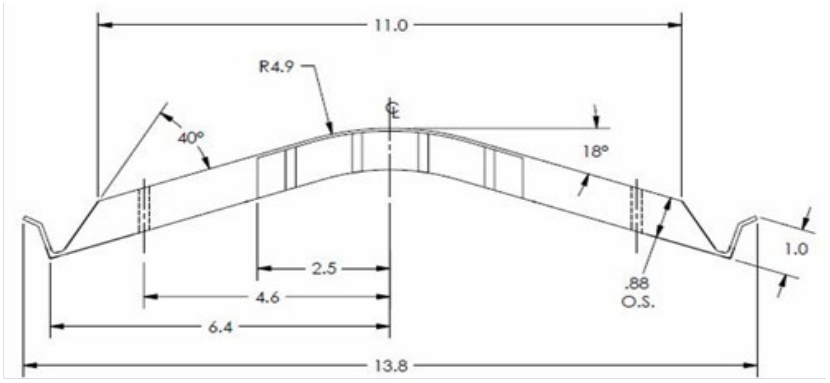
7.1 Each carton or package of the SHFV (ShingleVent II), SHFV7 (ShingleVent II-7) and SHFV9 (ShingleVent II-9) ridge vent is identified by a stamp bearing the manufacturer's name and address (as noted in Sections 7.2 and 7.3 below), the product name, the size, the evaluation report number (ESR-2071), and the installation instructions. Each individual vent is identified with the manufacturer's name, the ICC-ES evaluation report number, and the net-free ventilation area.

7.2 The report holder's contact information is the following:

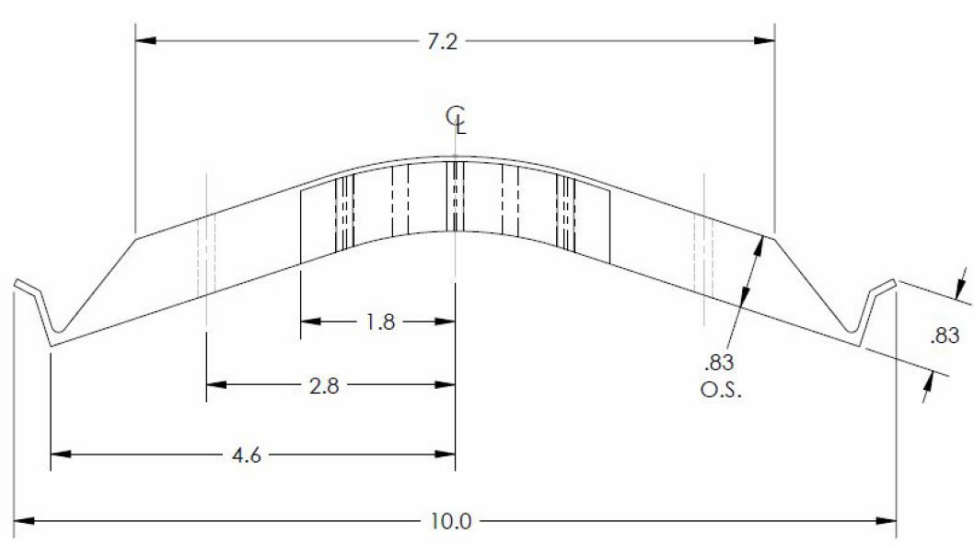
AIR VENT, INC.
4117 PINNACLE POINT DRIVE, SUITE 400
DALLAS, TEXAS 75211
(214) 630-7377
www.airvent.com

7.3 The additional listee's contact information is the following:

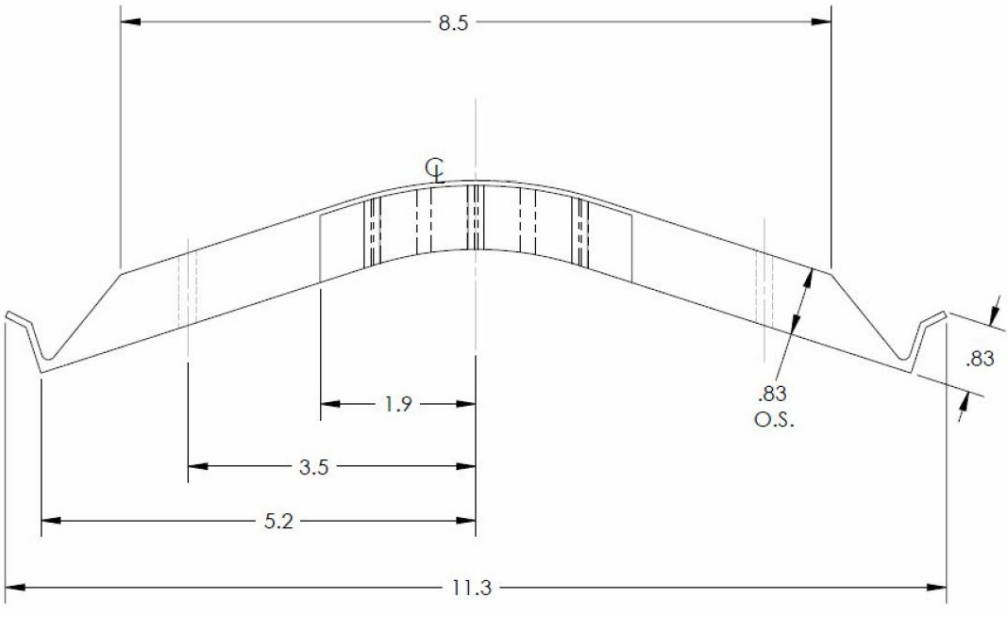
TRI-BUILT MATERIALS GROUP, LLC
505 HUNTMAR PARK DRIVE
HERNDON, VIRGINIA 20170
(320) 255-5374
www.becn.com



SHFV (ShingleVent II)



SHFV7 (ShingleVent II-7)



SHFV9 (ShingleVent II-9)

FIGURE 1—RIDGE VENT PROFILES

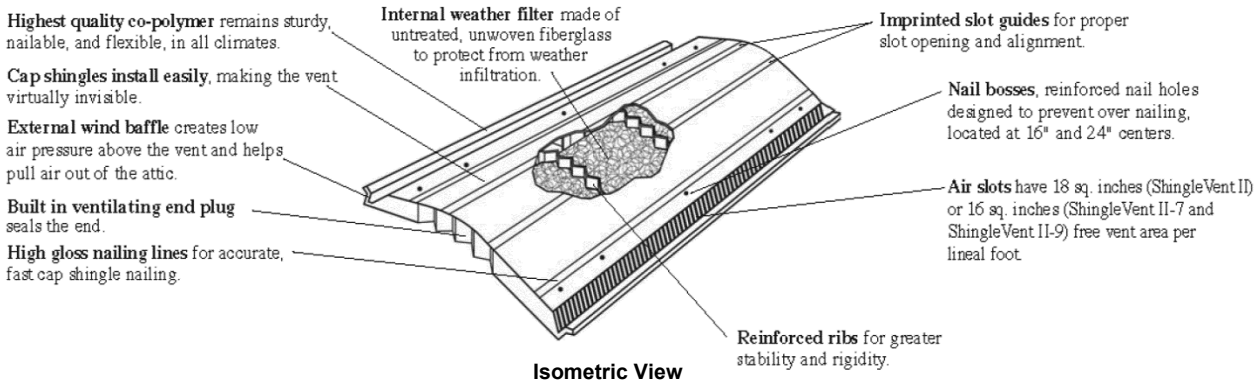


FIGURE 2—SHINGLEVENT