



ICC-ES Evaluation Report

Reissued January 2023

ESR-3150

This report is subject to renewal January 2025.

DIVISION: 07 00 00—THERMAL AND MOISTURE

PROTECTION

Section: 07 31 13—Asphalt Shingles

REPORT HOLDER:

MALARKEY ROOFING PRODUCTS

EVALUATION SUBJECT:

MALARKEY POLYMER-MODIFIED ASPHALT SHINGLES

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2021, 2018, 2015, 2012 and 2009 *International Building Code*® (IBC)
- 2021, 2018, 2015, 2012 and 2009 *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:

- Weather resistance
- Fire classification
- Wind resistance

2.0 USES

The Malarkey asphalt shingles described in this report meet the requirements for Class A roof coverings when installed in accordance with this report.

3.0 DESCRIPTION

3.1 General:

Malarkey asphalt shingles are polymer-modified self-sealing shingles complying with ASTM D3462. See Table 1 and Figure 1 for shingle type (three-tab or laminated), product names, dimensions, and manufacturing locations.

3.2 Polymer Modified Asphalt Shingles:

3.2.1 Highlander NEX: Highlander NEX shingles are self-sealing laminated shingles that consist of bitumen and fillers applied onto a fiberglass mat and surfaced with mineral roofing granules.

3.2.2 Highlander NEX AR: Highlander NEX AR shingles are identical to the Highlander except for the addition of copper roofing granules, for algae resistance, on the top surfacing.

3.2.3 Dura-Seal: Dura-Seal are self-sealing, single layer, 3-tab shingles that consist of bitumen and fillers applied on a fiberglass mat and surfaced with roofing granules.

3.2.4 Dura-Seal AR: Dura-Seal AR are self-sealing, single layer, 3-tab shingles that consist of bitumen and fillers applied on a fiberglass mat and surfaced with algae resistant roofing granules.

3.2.5 Vista: Vista shingles are self-sealing laminated shingles that consist of polymer modified bitumen and fillers applied onto a fiberglass mat and surfaced with mineral roofing granules.

3.2.6 Vista AR: Vista AR shingles are self-sealing laminated shingles that consist of bitumen and fillers applied onto a fiberglass mat and surfaced with mineral roofing granules.

3.2.7 Alaskan: Alaskan shingles are self-sealing, single-layer three-tab shingles that consist of polymer-modified bitumen and fillers applied onto a fiberglass mat and surfaced with mineral roofing granules.

3.2.8 Alaskan Scotchgard™: Alaskan Scotchgard™ shingles are identical to the Alaskan except for the addition of copper roofing granules, for algae resistance, on the top surfacing.

3.2.9 Legacy: Legacy shingles are self-sealing laminated shingles that consist of polymer-modified bitumen and fillers applied onto a fiberglass mat and surfaced with mineral roofing granules.

3.2.10 Legacy Scotchgard™: Legacy Scotchgard™ shingles are identical to the Legacy except for the addition of copper roofing granules, for algae resistance, on the top surfacing.

3.2.11 Ecoasis NEX: Ecoasis shingles are self-sealing laminated shingles that consist of bitumen and fillers applied onto a fiberglass mat and surfaced with reflective roofing granules

3.2.12 Ecoasis Premium: Ecoasis Premium shingles are self-sealing laminated shingles that consist of polymer-

modified bitumen and fillers applied onto a fiberglass mat and surfaced with reflective roofing granules, as well as copper roofing granules on the top surfacing for algae resistance.

3.2.13 Windsor Scotchgard™: Windsor Scotchgard™ shingles are heavy weight self-sealing laminated shingles that consist of polymer-modified bitumen and fillers applied onto a fiberglass mat and surfaced with mineral roofing granules.

3.2.14 EZ-Ridge: EZ-Ridge high profile decorative ridge shingles with sealant consist of an SBS blend asphalt coating applied onto a fiberglass mat and surfaced with colored ceramic granules. EZ-Ridge has an exposure of 8¹/₄ inches (210 mm).

3.2.15 EZ-Ridge XT: EZ-Ridge XT high profile decorative shingles with sealant consist of an SBS blend asphalt coating applied onto a fiberglass mat and surfaced with colored granules. The EZ-Ridge XT has an exposure area of 8¹/₄ inches (210 mm).

3.2.16 10" RidgeFlex: 10" RidgeFlex are SBS-modified fiberglass hip & ridge caps intended for use with wide ridge vents. 10" RidgeFlex consists of a fiberglass mat impregnated and coated on both sides with a modified-bitumen asphalt surfaced with embedded ceramic granules.

3.2.17 12" RidgeFlex: 12" RidgeFlex are SBS-modified fiberglass hip and ridge caps intended for use with wide ridge vents. 12" RidgeFlex consists of a fiberglass mat impregnated and coated on both sides with a modified-bitumen asphalt surfaced with embedded ceramic granules.

3.3 Fasteners:

Fasteners must comply with ASTM F1667 and must be minimum No. 12 gage [0.105-inch-diameter (2.67 mm) shank], 3/8-inch-diameter-head (9.5 mm), galvanized steel, stainless steel, aluminum or copper roofing nails. Fasteners must be of sufficient length to penetrate into the sheathing 3/4 inch (19.1 mm), or through the sheathing, whichever is less.

3.4 Underlayment:

Under the 2021 and 2018 IBC, the roof underlayment must be in accordance with Section 1507.1.1 and Table 1507.1.1(1). Under the 2015, 2012 and 2009 IBC, the roof underlayment must be in accordance with Section 1507.2.3. Under the 2021, 2018 and 2015 IRC, the roof underlayment must be in accordance with Section R905.1.1 and Table R905.1.1(1) [2012 and 2009 IRC Section R905.2.3].

3.5 Asphalt Cement:

Asphalt roofing cement used for hand-sealing the shingles must comply with ASTM D4586, Type I, Class I, or Type II, Class I.

4.0 INSTALLATION

4.1 New Construction:

4.1.1 General: Installation of Malarkey polymer-modified asphalt shingles must comply with the applicable code, this report and the manufacturer's published installation instructions. The manufacturer's published installation instructions must be available at the jobsite at all times during installation. When installed on new construction in accordance with this section, the shingles are a Class A roof covering.

Roof deck must be code-complying, minimum 3/8-inch-thick (9.5 mm), exterior-grade plywood; 7/16-inch-thick (11.1 mm) oriented strand board (OSB); or nominally 1-inch-by-6-inch (25-by-152 mm) lumber installed as solid sheathing conforming to 2021, 2018, and 2015 IBC

Section 2304.8.2 or 2308.7.10 [2012 and 2009 IBC Section 2304.7.2 or 2308.10.8]. The shingles must be installed in accordance with IBC Section 1507.2 or IRC Section R905.2, except as noted in this report. See Figure 5 for typical installation details.

4.1.2 Underlayment: Under the 2021 and 2018 IBC, the roof underlayment must be installed in accordance with Section 1507.1.1 and Tables 1507.1.1(2) and 1507.1.1(3). Under the 2015, 2012 and 2009 IBC, the roof underlayment must be installed in accordance with Section 1507.2.8. Under the 2021, 2018 and 2015 IRC, the roof underlayment must be installed in accordance with Section R905.1.1 and Tables R905.1.1(2) and R905.1.1(3). Under the 2012 and 2009 IRC, the roof underlayment must be installed in accordance with Section R905.2.7. Minimum roof slope must be 2:12. For roof slopes greater than 4:12, the roof deck must be covered with a minimum of one layer of underlayment as described in Section 3.4 of this report. For slopes between 2:12 and 4:12, two layers of the underlayment described in Section 3.4 of this report are required. In areas where there has been a history of ice forming along the eaves, causing a backup of water, an ice barrier must be provided in accordance with 2021 and 2018 IBC Section 1507.1.2 [2015, 2012 and 2009 IBC Section 1507.2.8.2] or 2021, 2018, and 2015 IRC Section R905.2.7 [2012 and 2009 IRC Section R905.2.7.1], as applicable.

4.1.3 Shingle Application: The three-tab and laminated shingles are installed with vertical joints of each course of shingles offset a minimum of 4 inches (102 mm) from the preceding course and with a maximum exposure to the weather of 5⁵/₈ inches (143 mm). Windsor shingles are offset a minimum of 5¹/₂ inches (140 mm) from the preceding course and have a maximum exposure to the weather of 5³/₄ inches (146 mm). In colder climates or wind regions where it is questionable whether the sealant strip will activate and seal the shingles, the shingles must be hand-sealed. For three-tab shingles, hand-sealing consists of applying two spots of tab adhesive, approximately 1/2 inch (12.7 mm) in diameter, under each tab near the corners. Hand-sealing of laminated shingles consists of applying four 15/16-inch (23.8 mm) spots of tab adhesive to the back of the shingles, 1 inch and 13 inches (25 mm and 330 mm) in from each side and 1 inch (25 mm) up from the bottom of the shingle. For Windsor shingles, hand-sealing consists of applying a dab of tab adhesive, approximately 1 inch (25 mm) in diameter, under each shingle tab. See Figures 3 and 4.

4.1.4 Shingle Fastening: For roof slopes of 2:12 to 21:12, three-tab and laminated shingles are fastened to the roof deck using four fasteners, located as shown in Figure 2. Windsor shingles require five or six fasteners, depending on region, as shown in Figure 3. In high wind areas and for roof slopes exceeding 21:12, three tab and laminated shingles must be hand-sealed in accordance with Section 4.1.3 and fastened to the roof deck using six fasteners, located as shown in Figure 2. In high wind areas and for roof slopes exceeding 21:12, Windsor shingles require nine fasteners and hand-sealing, located as shown in Figure 3. See Figure 5 for nailing depth illustration.

4.1.5 Valley Construction, Other Flashings and Drip Edges: Roof valleys must be flashed in accordance with 2021 and 2018 IBC Section 1507.2.8.2 [2015, 2012 and 2009 IBC Section 1507.2.9.2] or IRC Section R905.2.8.2. See Figure 7 for typical installation details. Other flashings must be installed in accordance with IBC Sections 1503.2 and 2021 and 2018 IBC Section 1507.2.8 [2015, 2012 and 2009 1507.2.9] or IRC Sections R903.2 and R905.2.8. Drip edges must be installed in accordance with 2021 and 2018

IBC Section 1507.2.8.3 [2015, 2012 and 2009 IBC Section 1507.2.9.3] or IRC Section R905.2.8.5.

4.1.6 Hip & Ridge: The hip & ridge shingles must be centered over hips and ridges, and must be fastened to the roof deck using two fasteners, one located on each side of the hip or ridge, 6¹/₂ inches (165 mm) from the exposed end for RidgeFlex products, 8³/₄ inches (222.3 mm) for EZ-Ridge products, and 1 inch (25.4 mm) up from the shingle edge for both RidgeFlex and EZ-Ridge products. RidgeFlex hip and ridge shingles must be installed with a maximum 5⁵/₈-inch (143 mm) exposure to the weather. See Figure 8. EZ-Ridge and EZ-Ridge XT hip and ridge shingles must be installed with a maximum exposure of 8¹/₄-inch (210 mm) exposure to the weather. See Figure 9 for details.

4.2 Reroofing:

When the asphalt shingles described in this report are installed over existing Class A or Class C asphalt shingles in accordance with this section, the roofing assemblies are recognized as Class A roof coverings. The existing asphalt roof shingle covering must be inspected in accordance with the provisions and limitations of 2021 IBC section 1512 and 2018 and 2015 IBC Section 1511 [2012 and 2009 IBC Section 1510] or 2021, 2018, and 2015 IRC Section R908 [2012 and 2009 IRC Section R907]. Prior to reroofing, hip and ridge shingles must be removed. Except as noted in this section, the shingles must be installed in accordance with Section 4.1 of this report. Fasteners must be of sufficient length to penetrate ³/₄ inch (19 mm) into the sheathing or through the sheathing, whichever is less. Valley flashing and other flashings must comply with Section 4.1.5 and the following, as applicable:

- **IBC:** 2021 Sections 1512.4 and 1512.5 and 2018 and 2015 Sections 1511.5 and 1511.6 [2012 and 2009 Sections 1510.5 and 1510.6].
- **IRC:** 2021, 2018 and 2015 Sections R908.5 and R908.6 [2012 and 2009 IRC Sections R907.5 and R907.6].

4.3 Wind Resistance:

Malarkey asphalt shingles have been tested for wind resistance in accordance with ASTM D3161 or ASTM D7158. Shingles tested in accordance with ASTM D3161 are classified as Class A or Class F and qualify for use under 2021 IBC Section 1504.2 and 2018 and 2015 IBC Section 1504.1.1 [2012 and 2009 IBC Section 1507.2.7.1] or IRC Section R905.2.4.1, as applicable. Shingles tested in accordance with ASTM D7158 are classified as Class H and qualify for use in locations where the maximum basic wind

speed is 190 mph (306 kph) or less with an exposure category of B or C (ASCE 7) and a maximum building height of 60 feet (18.3 m). Installation must be in accordance with 2021 and 2018 IBC Section 1507.2.6 [2015, 2012 and 2009 Section 1507.2.7] or IRC Section R905.2.6, as applicable.

5.0 CONDITIONS OF USE

The Malarkey asphalt shingles 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 complies with this report, the manufacturer's published installation instructions and applicable code. If there is a conflict between the installation instructions and this report, this report governs.
- 5.2 The products are manufactured at the plant locations listed in Table 1 of this report, under a quality control program with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

- 6.1 Manufacturer's published installation instructions.
- 6.2 Reports of testing in accordance with ASTM D3462, ASTM D3161, ASTM D7158, and ASTM E108.
- 6.3 Quality control documentation.

7.0 IDENTIFICATION

- 7.1 Each bundle of shingles bears a label with the name and address of the manufacturer (Malarkey Roofing Products), the product name, installation instructions, and the ICC-ES evaluation report number (ESR-3150). Additionally, in accordance with ASTM D3462, each bundle of shingles is marked with the area of the roof surface covered, ASTM designation, style, and color of the product.
- 7.2 The report holder's contact information is the following:

MALARKEY ROOFING PRODUCTS
POST OFFICE BOX 17217
3131 NORTH COLUMBIA BOULEVARD
PORTLAND, OREGON 97212
(503) 240-1191
www.malarkeyroofing.com

TABLE 1—PRODUCT LIST, DIMENSIONS AND MANUFACTURING FACILITIES

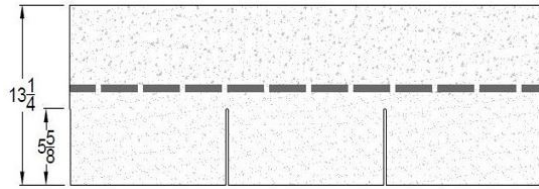
SHINGLE TYPE	PRODUCT	DIMENSIONS (inches)		MANUFACTURING FACILITY
		Height	Width	
Three Tab	The Alaskan	13 ¹ / ₄	39 ³ / ₈	Portland, Oregon South Gate, California Oklahoma City, Oklahoma
	The Alaskan Scotchgard™	13 ¹ / ₄	39 ³ / ₈	Portland, Oregon South Gate, California
	Dura-Seal	13 ¹ / ₄	39 ³ / ₈	South Gate, California
	Dura-Seal AR	13 ¹ / ₄	39 ³ / ₈	South Gate, California
Laminated	Vista	13 ¹ / ₄	40	Portland, Oregon South Gate, California
	Vista AR	13 ¹ / ₄	40	Portland, Oregon South Gate, California Oklahoma City, Oklahoma
	Highlander NEX	13 ¹ / ₄	40	South Gate, California
	Highlander NEX AR	13 ¹ / ₄	40	Portland, Oregon South Gate, California Oklahoma City, Oklahoma
	Legacy	13 ¹ / ₄	40	Portland, Oregon South Gate, California Oklahoma City, Oklahoma
	Legacy Scotchgard™	13 ¹ / ₄	40	Portland, Oregon Oklahoma City, Oklahoma
	Ecoasis NEX	13 ¹ / ₄	40	South Gate, California
	Ecoasis Premium	13 ¹ / ₄	40	South Gate, California
	Windsor Scotchgard™	19 ¹ / ₄	38 ¹ / ₄	Portland, Oregon
Hip & Ridge	10" RidgeFlex	9 ⁷ / ₈	13 ¹ / ₄	Portland, Oregon Oklahoma City, Oklahoma
	12" RidgeFlex	12	13 ¹ / ₄	Portland, Oregon Oklahoma City, Oklahoma
	EZ Ridge	8	11 ¹ / ₂	South Gate, California
	EZ Ridge XT	9 ⁷ / ₈	13 ¹ / ₄	South Gate, California

For SI: 1 inch = 25.4 mm

3-TAB 39-3/8"
 Dura-Seal
 Dura-Seal AR
 The Alaskan
 The Alaskan Scotchgard

LAMINATE 39"
 Vista
 Vista AR
 Highlander NEX
 Highlander NEX AR
 Ecoasis NEX

LAMINATE 40"
 Legacy
 Legacy Scotchgard
 Ecoasis Premium



ELEGANT HEAVYWEIGHT:

-WINDSOR SCOTCHGARD™

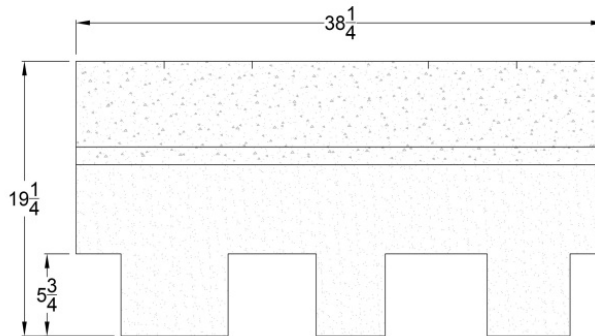
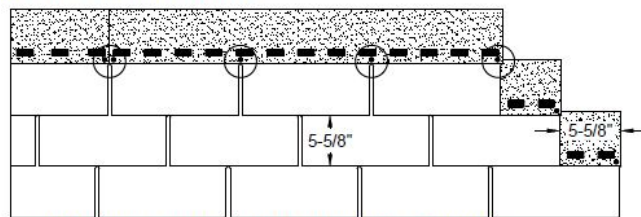


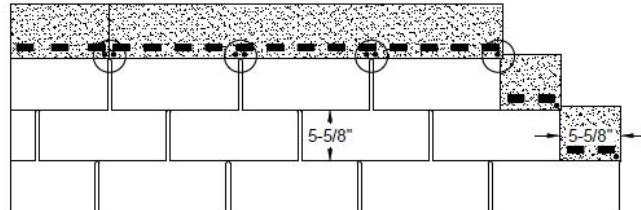
FIGURE 1—ASPHALT SHINGLE DIMENSIONS

3-TAB 4 NAIL PATTERN



-LOCATION OF FASTENERS SHOULD BE JUST BELOW THE SELF-SEAL STRIP AND CENTERED OVER THE CUTOUTS. END FASTENERS SHOULD BE PLACED APPROX. 1" FROM EACH EDGE.

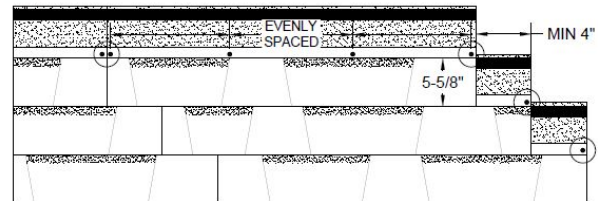
3-TAB 6 NAIL PATTERN



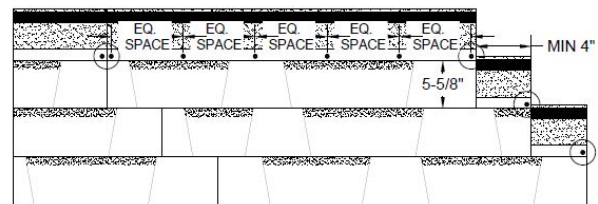
-FASTENERS SHOULD BE PLACED JUST BELOW THE SELF-SEAL STRIP WITH TWO NAILS SPACED 1" ON EITHER SIDE OF EACH CUTOUT. END FASTENERS SHOULD BE PLACED APPROX. 1" FROM EACH EDGE.

LAMINATE NAILING PATTERNS

4 NAIL



6 NAIL



-IN BOTH PATTERNS, FASTENERS SHOULD BE PLACED IN THE NAILING AREA AND END FASTENERS SET APPROX. 1" FROM EACH EDGE OF THE SHINGLE. THE REMAINING FASTENERS SHOULD BE EVENLY SPACED ON THE SAME LINE AS THE END FASTENERS.

FIGURE 2—NAILING INSTRUCTIONS

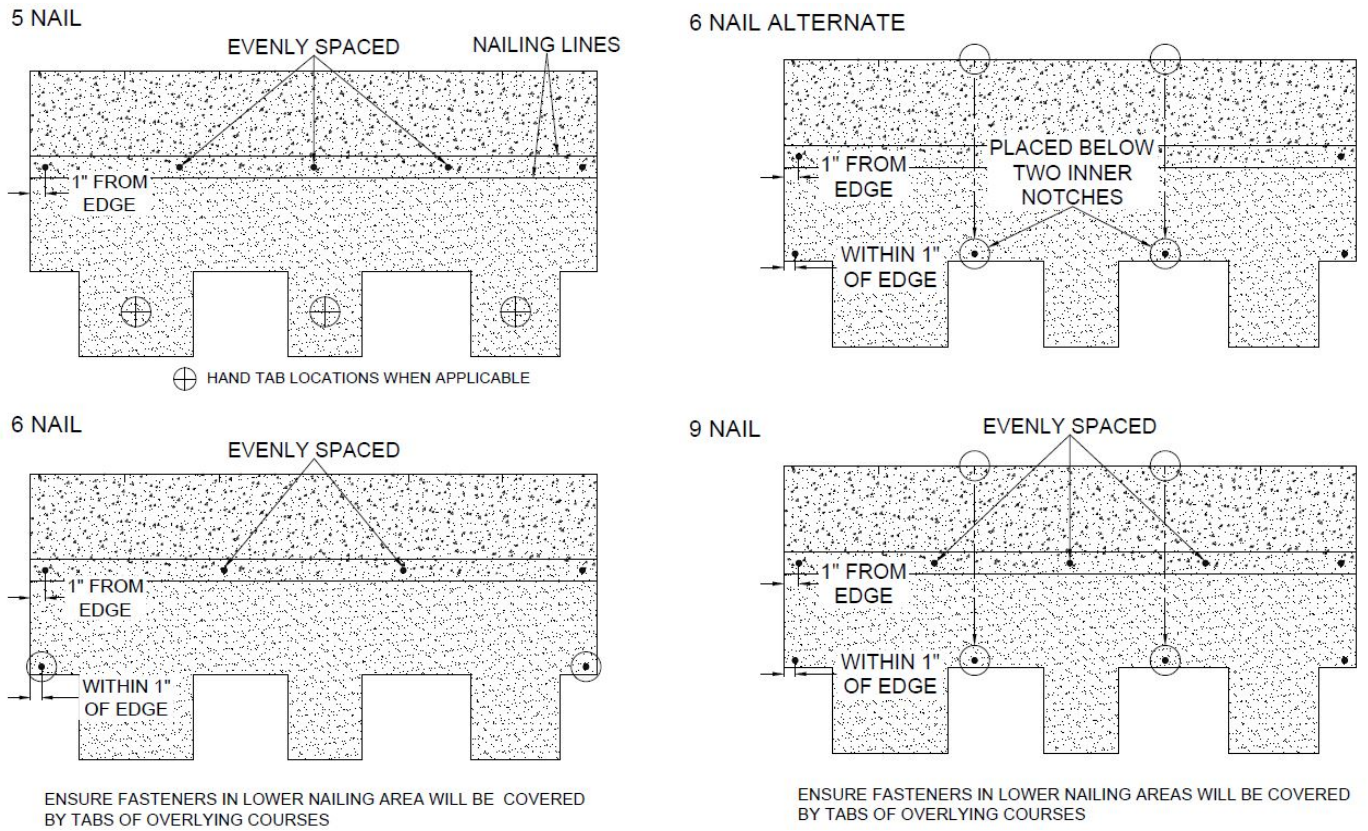
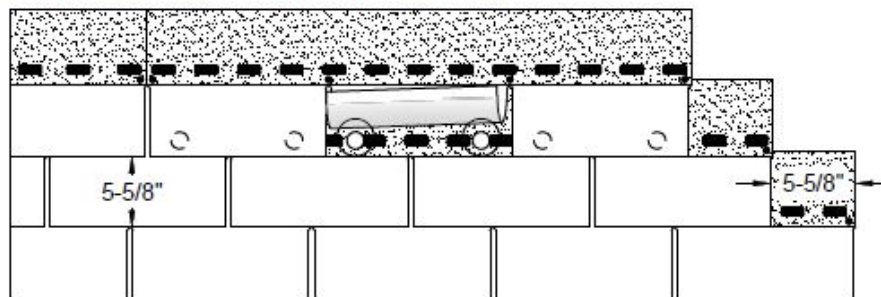


FIGURE 3—NAILING INSTRUCTIONS & HAND-TAB LOCATIONS: WINDSOR SHINGLES

HAND-SEALING 3-TAB SHINGLES



-APPLY 2 - 1" DABS OF SEALANT PER TAB, 6 PER SHINGLE.

HAND-SEALING LAMINATE SHINGLES

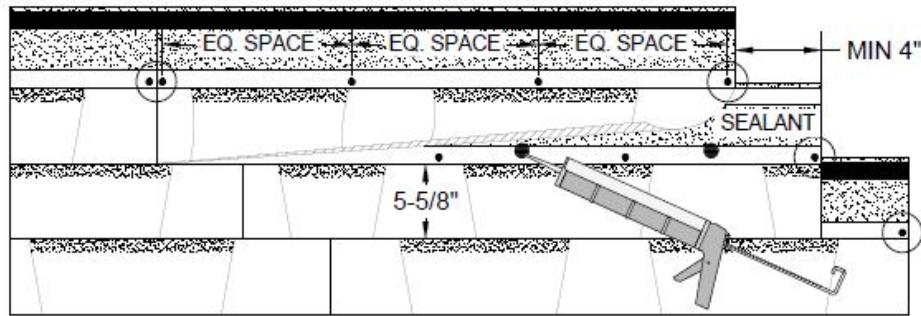


FIGURE 4—HAND-SEALING DETAIL

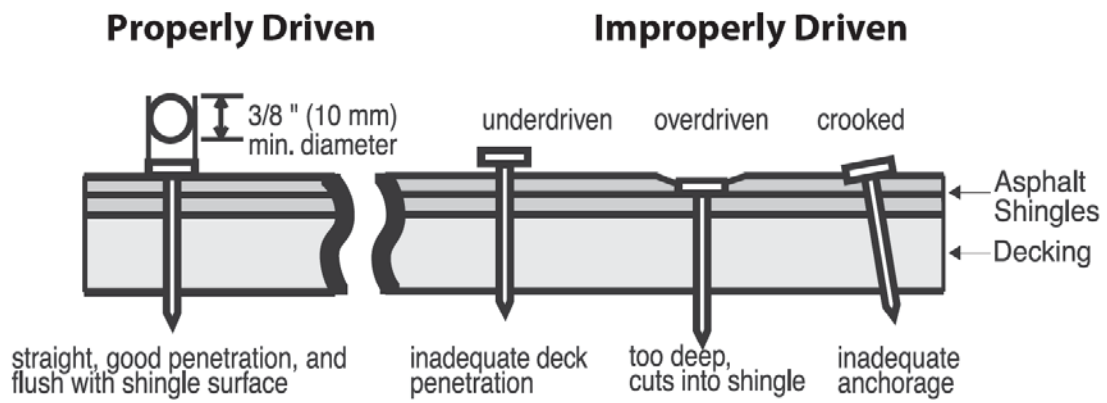
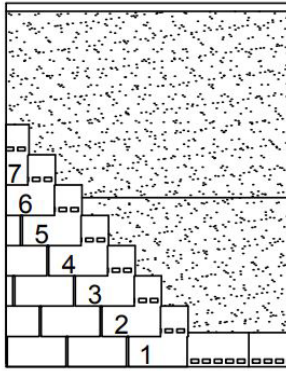


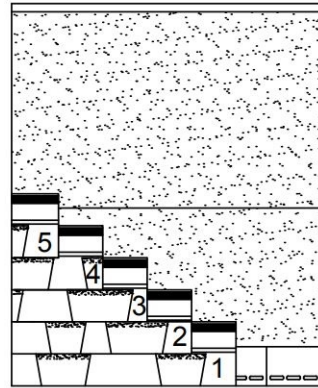
FIGURE 5—NAILING INSTRUCTIONS

3-TAB



- COURSES 1-7
 1: 39-3/8"
 2: 33-3/4"
 3: 28-1/8"
 4: 22-1/2"
 5: 16-7/8"
 6: 11-1/4"
 7: 5-5/8"

LAMINATE



- COURSES 1-5
 1: FULL LENGTH
 2-5: EACH COURSE
 PROGRESSIVELY 8"
 SHORTER (MIN 4")

WINDSOR

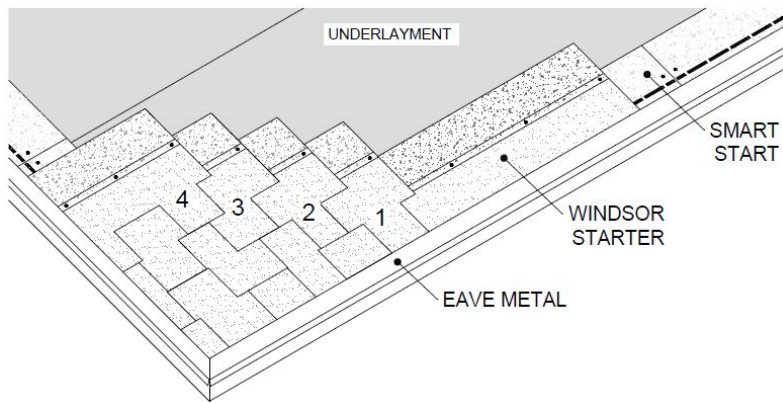


FIGURE 6—SHINGLE LAYOUTS; DIAGONAL PATTERN

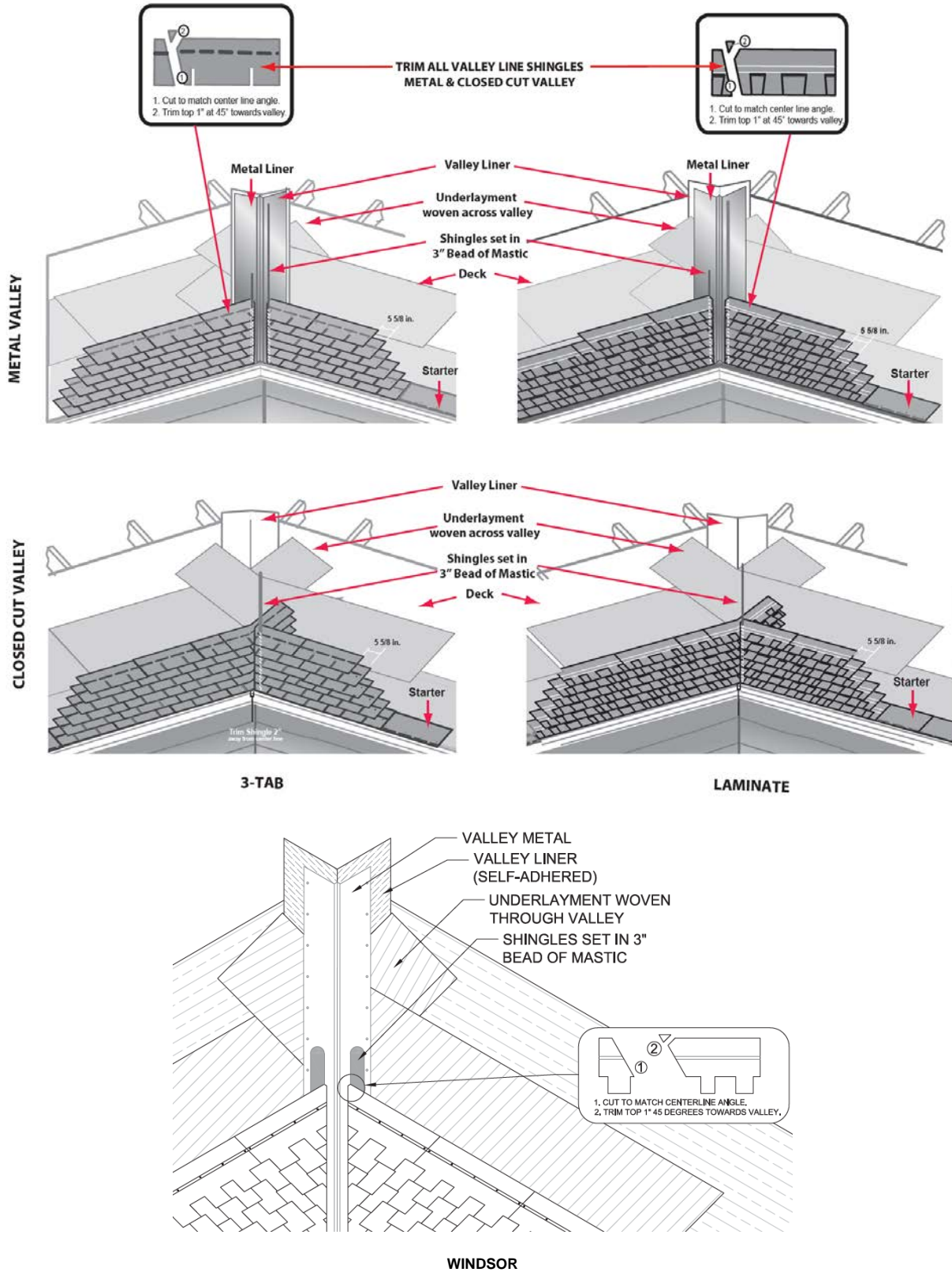
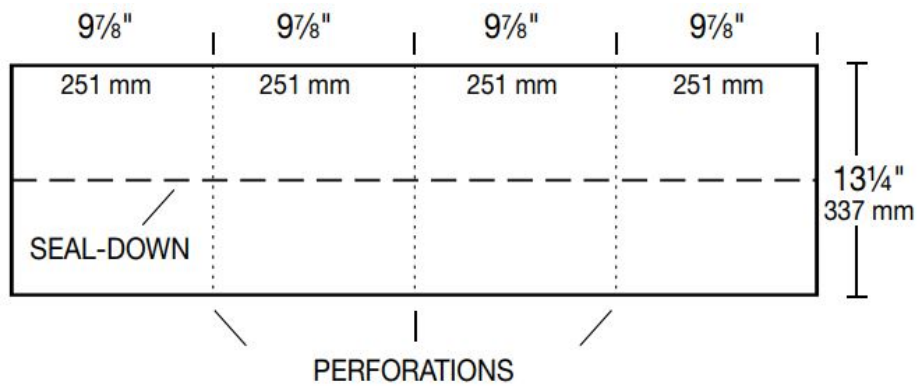
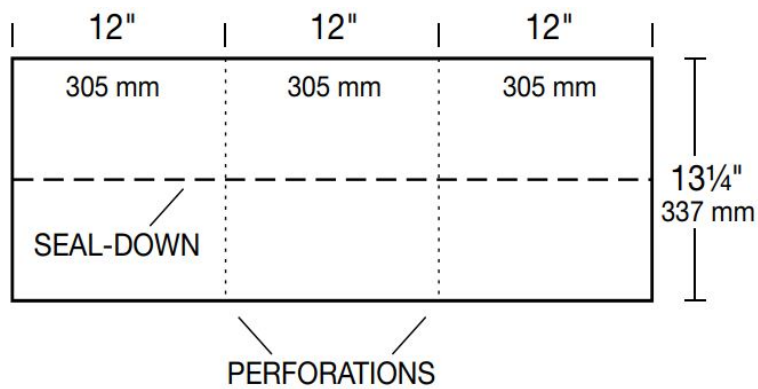


FIGURE 7—VALLEY INSTALLATION DETAIL: CLOSED-CUT AND OPEN METAL



10" RIDGEFLEX SEPARATES AT PERFORATIONS INTO FOUR HIP & RIDGE STRIPS



12" RIDGEFLEX SEPARATES AT PERFORATIONS INTO THREE HIP & RIDGE STRIPS

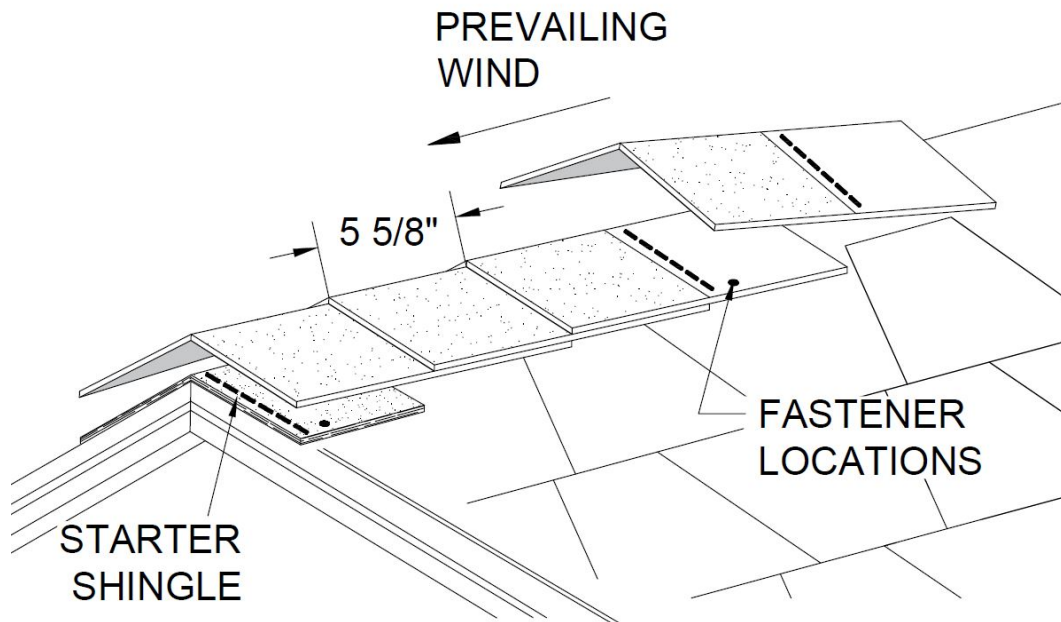


FIGURE 8 – INSTALLATION OF RIDGEFLEX HIP & RIDGE SHINGLES



EZ-RIDGE SHINGLE

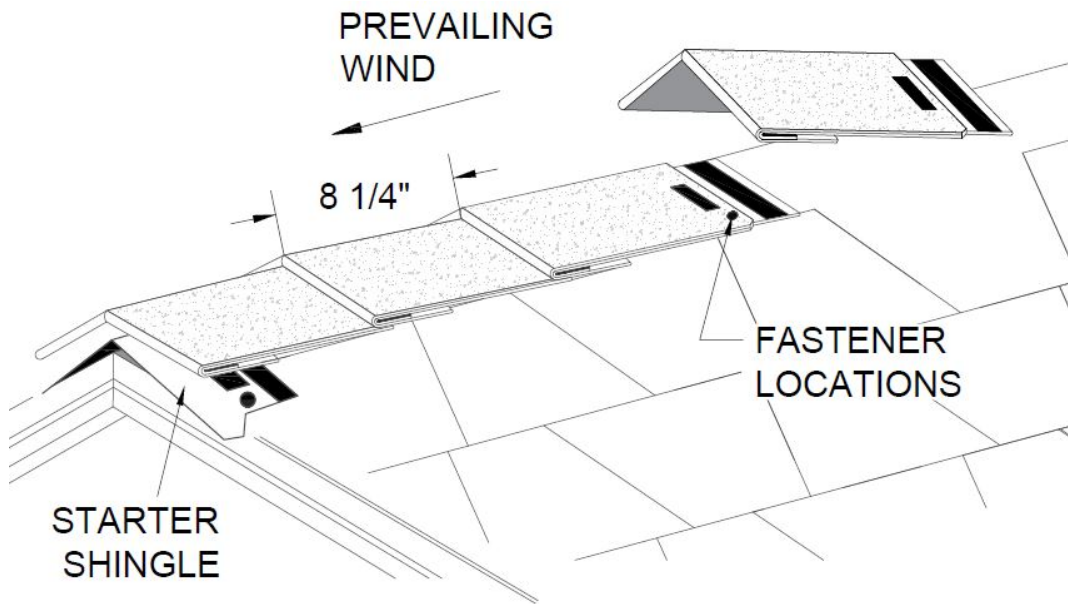


FIGURE 9 – INSTALLATION OF EZ-RIDGE HIP & RIDGE SHINGLES

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION
Section: 07 31 13—Asphalt Shingles

REPORT HOLDER:**MALARKEY ROOFING PRODUCTS****EVALUATION SUBJECT:****MALARKEY POLYMER-MODIFIED ASPHALT SHINGLES****1.0 REPORT PURPOSE AND SCOPE****Purpose:**

The purpose of this evaluation report supplement is to indicate that the Malarkey Engineered and Polymer-modified asphalt shingles, described in ICC-ES evaluation report ESR-3150, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2019 *California Building Code* (CBC)

For evaluation of applicable chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) AKA: California Department of Health Care Access and Information (HCAI) and the Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

- 2019 *California Residential Code* (CRC)

2.0 CONCLUSIONS**2.1 CBC:**

The Malarkey Engineered and Polymer-modified asphalt shingles, described in Sections 2.0 through 7.0 of the evaluation report ESR-3150, comply with CBC Sections 1505.1 and 1507.2, and may be used where the CBC requires a Class A roof covering complying with CBC Section 1505.1.1, a Class B roof covering complying with CBC Section 1505.1.2, or a Class C roof covering complying with CBC Section 1505.1.3, provided the design and installation are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of CBC Section 1511, as applicable.

2.1.1 OSHPD:

The applicable OSHPD Sections of the CBC are beyond the scope of this supplement.

2.1.2 DSA:

The applicable DSA Sections of the CBC are beyond the scope of this supplement.

2.2 CRC:

The Malarkey Engineered and Polymer-modified asphalt shingles, described in Sections 2.0 through 7.0 of the evaluation report ESR-3150, complies with CRC Sections R902.1 and R905.2, and may be used where the CRC requires a Class A roof covering complying with CRC Section R902.1.1, a Class B roof covering complying with CRC Section R902.1.2, or a Class C roof covering complying with CRC Section R902.1.3, provided the design and installation are in accordance with the 2018 *International Residential Code*® (IRC) provisions noted in the evaluation report and the additional requirements of CRC Section R908, as applicable.

This supplement expires concurrently with the evaluation report, reissued January 2023.