

Application Instructions

Before installing this product, check local building codes for their roofing requirements.

These shingles are designed for new or reroofing work over any properly built and supported wood roof deck having adequate nail holding capacity and a smooth surface. Check local building codes.

Precautionary Note:

The manufacturer will not be responsible for problems resulting from any deviation from the recommended application instructions and the following precautions:

Roof Top Loading: Lay shingle bundles flat. Do not bend over the ridge.

Roof Deck: • 6" Maximum roof deck boards • Minimum $\frac{3}{8}$ " plywood
• Minimum $\frac{7}{16}$ " OSB

Regardless of deck type used, the roofing installer must:

1. Install the deck material in strict compliance with the deck manufacturer's instructions.
2. Prevent the deck from getting wet before, during and after installation.

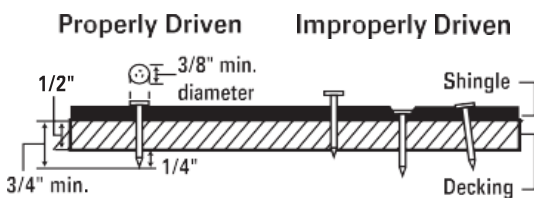
Ventilation: Must meet or exceed FHA Minimum Property Standards.

Handling: Use extra care in handling shingles when the temperature is below 40°F.

Shingle Cutting: For best results ensure that all cutting devices are sharp and that when cutting shingles it is best to cut with a quick motion as you pull the roofing knife through the shingle.

Storage: Store in a covered ventilated area at a maximum temperature of 110°F. Bundles should be stacked flat. Protect shingles from weather when stored at the job site. Do not store near steam pipes, radiators, etc.

Fastener requirement: Use galvanized steel, stainless steel, or aluminum nails minimum 12-gauge shank with $\frac{3}{8}$ " diameter head. Rua Merlin Roofing recommends that fasteners comply with ASTM F 1667. Check local building codes.



All Fasteners must penetrate at least $\frac{3}{4}$ " into the wood deck or completely through sheathing.

Notice: Rua Merlin Roofing recommends the use of nails as the preferred method of attaching shingles to wood decking or other available surface.

CAUTION

ROOF SURFACE MAY BE SLIPPERY: Especially when wet or icy. Use a fall protection system when installing. Wear rubber soled shoes. Walk with care.

FALLING HAZARD: Secure area below work and materials on roof. Unsecured materials may slide on roof. Place on level plane or secure to prevent sliding. Wear a hard hat.

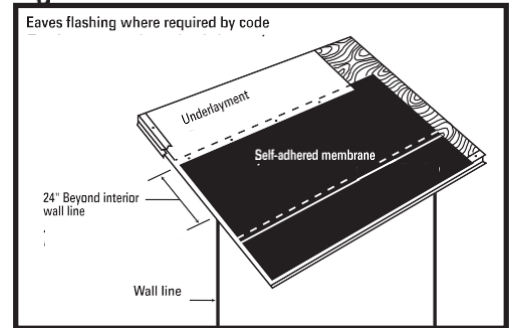
WARNING: This product contains a chemical known to the State of California to cause cancer.

1 Specialty Eave Flashing:

Where required by code.

Underlayment or equivalent eave and flashing membrane applied to a point at least 24" beyond interior wall line. See manufacturer's installation instructions. See Fig. 1.

Fig. 1 Specialty Eave Flashing



2 Underlayment:

Standard Slope (4" in 12" or more)

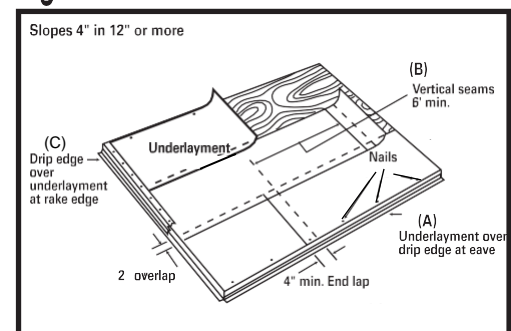
Application of underlayment, metal drip edges, and eaves flashing: See Fig.2.

(A) Apply one layer of underlayment over metal drip edge at eaves. Use only enough fasteners to hold in place.

(B) Overlap successive courses 2". Overlap course ends 4". Side laps are to be staggered 6' apart.

(C) Apply metal drip edge over underlayment at rake.

Fig. 2 Underlayment Standard Slope



3 Underlayment:

Low slope (2" in 12" to less than 4" in 12")

Application of roofing felt overlapped by 19 inches on each course. See Fig. 3.

(A) Apply 19" starter strip of underlayment over metal drip edge at eaves. Use only enough fasteners to hold it in place.

(B) Use 36" strip of underlayment for remaining courses, overlapping each course 19". Side laps are to be staggered 6' apart.

(C) Apply metal drip edge over underlayment at rake.

Or self-adhered underlayment or equivalent with a standard overlap of 3 inches and metal drip edge. See Fig. 3A.

Fig.3 Underlayment Low Slope

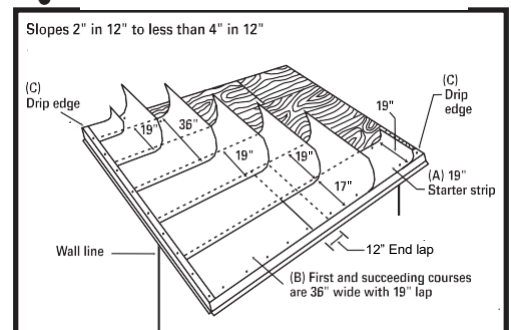
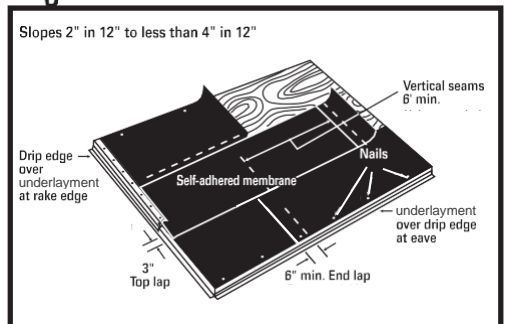


Fig. 3A Underlayment Low Slope



4 Shingle Fastening Pattern: Standard Fastening Pattern.

Fasteners must be placed in the nail fastening area. See Fig. 4.

Six Nail Fastening pattern.

For 6 nail fastening pattern. See Fig 4A.

Mansard or Steep Slope Fastening Pattern. Place fasteners $6\frac{1}{8}$ " from bottom edge to secure both layers of the shingle. Fasteners need to be located $6\frac{1}{8}$ " above the butt edge of the shingle, regardless of whether they are in the granules or the fastening area. See Fig. 4B.



REQUIRED: For slopes exceeding 60 degrees or 21" per foot, use six fasteners and four spots of asphalt cement per shingle. Apply immediately; one 1" diameter spot of asphalt cement under each shingle tab. Centre asphalt roof cement 2" up from bottom edge of shingle tab.

Roof Cement where required must meet ASTM D-4586 Type 1 or 11 (Asbestos Free)

Fig. 4. Standard Fastening Pattern

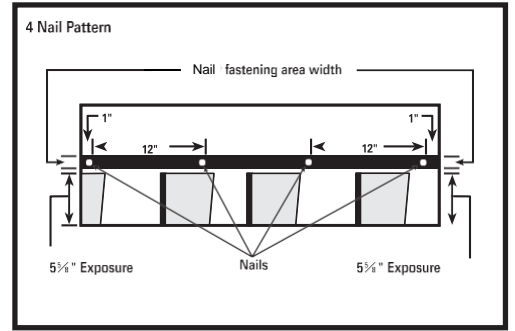


Fig. 4A Six Nail fastening Pattern

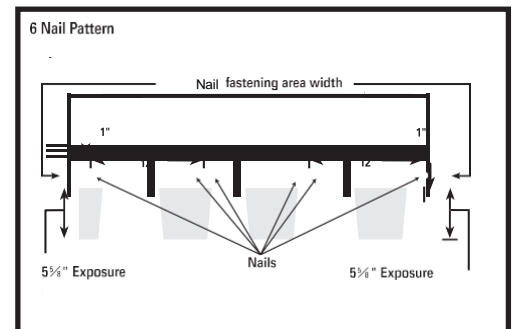
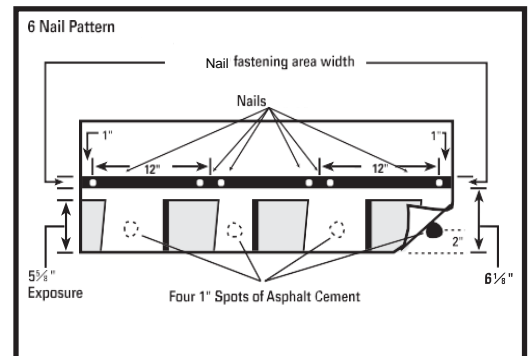


Fig. 4B Mansard or steep Slope Fastening Pattern



5 Shingle Application:

These shingles are applied with a $6\frac{1}{2}$ " offset, with $5\frac{5}{8}$ " exposure, over prepared roof deck, starting at the bottom of the roof and working across and up. This will blend shingles from one bundle into the next and minimize any normal shade variation. Application with offsets of 4" or 5" are also acceptable.

Caution must be exercised to assure that end joints are no closer than 2" from fastener in the shingle below and that side laps are no less than 4" in succeeding courses. Refer to course application steps for specific instructions

5 Shingle Application (cont.):

Starter Course:

Use starter roll or trim $5\frac{5}{8}$ " from the starter course shingle. Trim $6\frac{1}{2}$ " off the rake of the starter course shingle and flush with the drip edge along the rake and eaves edge, and continue across the roof. Use 5 fasteners for each shingle, placed 2" to 3" up from eaves edge. See Fig. 5. (If no drip edge is used, shingles must extend a minimum of $\frac{1}{2}$ " and no more than 1" from rake and eaves edge.)

First Course:

Apply first course starting with the full shingle even with the starter course. See Fig. 5A.

Fasten securely according to fastening instructions. See Fig. 4.

Second Course:

Remove $6\frac{1}{2}$ " from the left end of this shingle and apply the remaining piece over and above the first course shingle and flush with edge of the first course with $5\frac{5}{8}$ " exposure. See Fig. 5B.

Fasten securely according to fastening instructions. See Fig. 4.

Third Course:

Remove 13" from the left end of this shingle and apply the remaining piece over and above the second course shingle flush with edge of the second course with $5\frac{5}{8}$ " exposure. See Fig. 5C.

Fasten securely according to fastening instructions. See Fig. 4.

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Fig. 5 Shingle Application

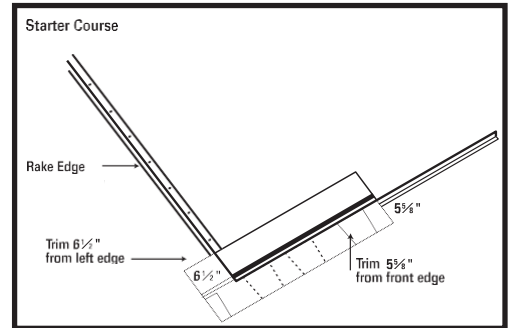


Fig. 5A Shingle Application

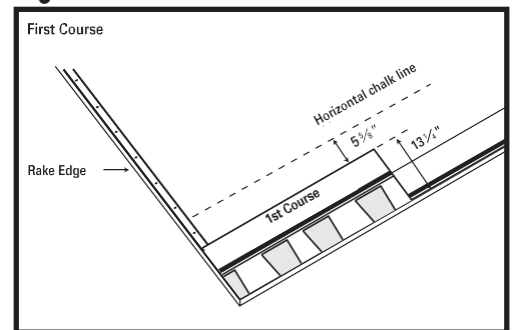


Fig. 5B Shingle Application

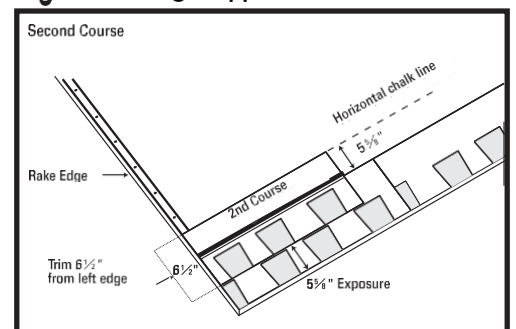
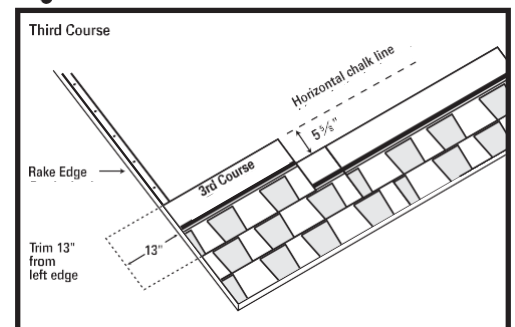


Fig. 5C Shingle Application



5 Shingle Application (cont.):

Fourth Course:

Remove $19\frac{1}{2}$ " from the left end of this shingle and apply the remaining piece over and above the third course shingle and flush with edge of the third course with $5\frac{5}{8}$ " exposure. See Fig. 5D.

Fasten securely according to fastening instructions. See Fig. 4.

Fifth Course:

Remove 26" from the left end of this shingle and apply the remaining piece over and above the fourth course shingle and flush with edge of the fourth course with $5\frac{5}{8}$ " exposure. See Fig. 5E

Fasten securely according to fastening instructions. See Fig. 4.

Sixth Course:

Remove $32\frac{1}{2}$ " from the left end of this shingle and apply the remaining piece over and above the fifth course shingle and flush with edge of the fifth course with $5\frac{5}{8}$ " exposure. See Fig. 5F.

Fasten securely according to fastening instructions. See Fig. 4.

Succeeding Courses:

For succeeding courses, repeat first through sixth course. See Fig. 5G.

Fig. 5D Shingle Application

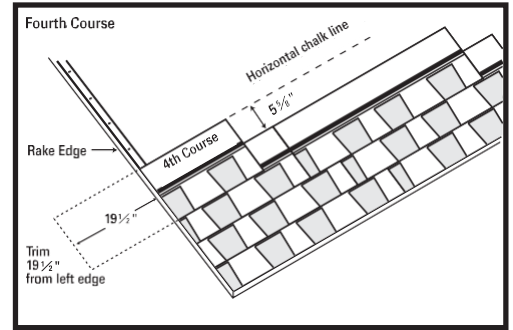


Fig. 5E Shingle Application

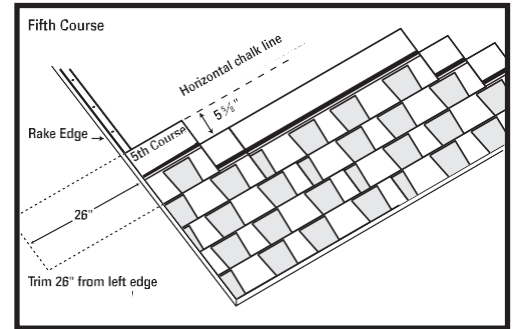


Fig. 5F Shingle Application

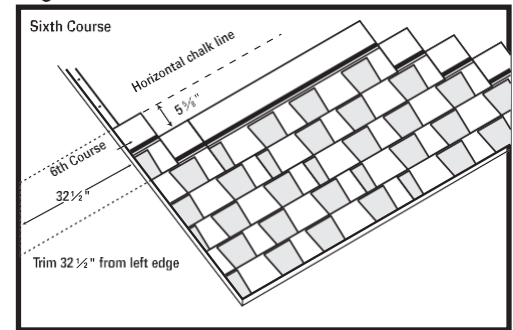
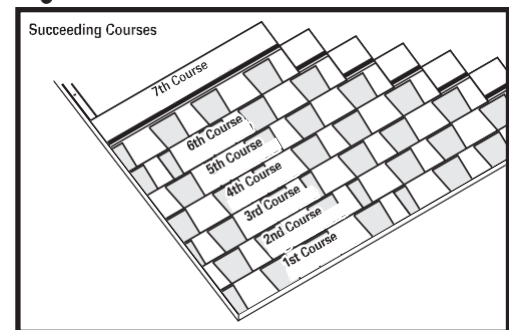


Fig. 5G Shingle Application



6 Valley Construction: Closed-Cut Valley See Fig. 6.

A closed-cut valley can be used as an alternative to woven or open valley and is applied as follows

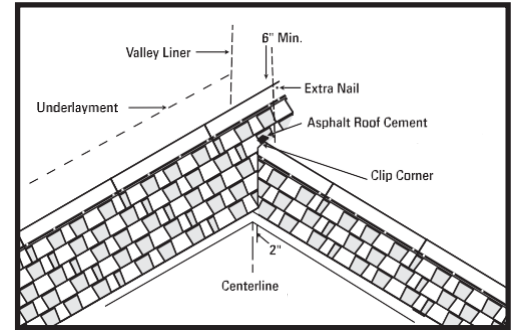
Lay a 36" wide valley liner of self- adhered membrane underlayment or equivalent. A 36" wide minimum 50 lb. roll roofing can also be used as a valley liner.

Lay all shingles on one side of valley and across center line of valley a minimum of 12". Fasten a minimum of 6" away from center line on each side of valley.

Strike a chalk line 2" from the center line of the unshingled side. Apply shingles on the unshingled side up to the chalk line and trim, taking care not to cut the underlying shingles. Clip upper corners of these shingles, cement and fasten.

Both woven and metal valleys are acceptable alternatives.

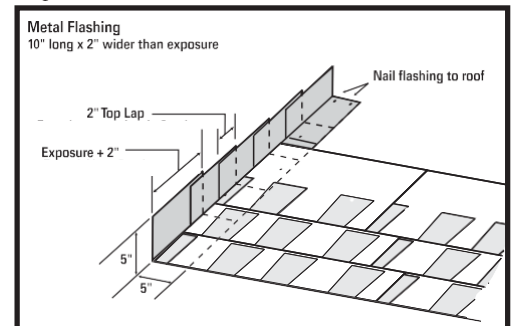
Fig. 6 Closed-Cut Valley Construction



7 Step Flashing:

Use 10" long and 2" wider than expected exposure corrosion-resistant metal where roof planes butt against vertical sidewalls or chimneys. See Fig. 7. Check local building codes.

Fig. 7 Step Flashing



8 Hip & Ridge Application:

Use corresponding Owens Corning™ Hip & Ridge shingles to best complement shingle color. Follow specific application instructions as printed on the Hip & Ridge shingle package. See Fig. 8.

Fig. 8 Hip & Ridge Application

