Installation Instructions



Oakridge® PRO™ Series

Laminate Shingles

These laminated 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.

UL Class A Fire Resistance & Wind Resistance Ratings

When applied in accordance with these instructions, these shingles carry the Underwriters Laboratories Class A fire resistance rating, the top rating for residential shingles. They will resist exposure to fire in accordance with UL Standard 790. When applied properly, these shingles also meet UL wind resistance Standard 997. All laminated shingles have a factory-applied strip of special thermoplastic adhesive on each shingle. After direct exposure to the sun's heat, each course bonds securely to the course below (a matter of days in spring through fall seasons, in winter it varies depending on geographical location, roof slope and orientation of the house on the site, in relation to the sun).

Other Roofing Materials

Metal Drip Edges – are recommended along rake and eaves edges of all decks.

Underlayment – is recommended for roofing over any bare deck, and is *required* for a ULClass A fire rating. Use only "breather type" material such as Asphalt Saturated Felt or Shingle Underlayment classified by UL as a Prepared Roofing Accessory to assure Class A fire performance and watertight performance from wind-driven rain.

 $\mbox{Nails}-\mbox{must}$ be galvanized, 11- or 12-gauge, with heads at least 3/8" in diameter. Staples must be 16-gauge minimum, 15/16" minimum crown width and sufficient length to penetrate 3/4" into wood decking or through APA rated roof sheathing. Staples are to be corrosion protected.

All Fasteners – must penetrate at least 3/4" into wood deck or completely through plywood sheathing.

Note: Owens Corning recommends the use of nails as the preferred method of attaching shingles to wood decking or other nailable surface.

Plastic Cement – where required must meet ASTM D 4586 Type II (Asbestos Free).

1a Deck Preparation

For Standard Slope Decks (4" in 12" or more)

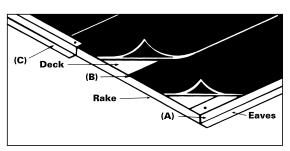
Application of underlayment, metal drip edges and eaves flashing: **(A)** Apply one layer of underlayment over metal drip edge at eaves.

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.

Note: Where ice-damming may cause leaks, apply Owens Corning WeatherLock® underlayment or equivalent eaves flashing at least 24" beyond the inside wall line. When using a coated smooth roll or mineral surfaced roll roofing, apply over the underlayment. When using a specialty eaves flashing product, follow the manufacturer's instructions.



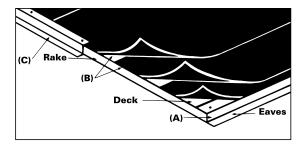
1b Deck Preparation

For Low Slope Decks (2" in 12" to less than 4" in 12")

Application of underlayment, metal drip edges and eaves flashing: (A) Apply 19" starter strip of underlayment over metal drip edge at eaves. Use only enough fasteners to hold 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.

Note: Where eaves flashing is required apply Owens Corning *Weather-Lock* underlayment or equivalent specialty eaves flashing product or apply a continuous layer of asphalt plastic cement between the plies of underlayment at least 24" beyond the inside wall line.





2 Shingle Application

Apply shingles over properly prepared roof deck, starting at bottom of roof and working across and up. This will blend shingles from one bundle into the next and minimizes any normal shade variation. Laminated shingles are applied with a 6-1/2" offset. While a 6-1/2" offset is recommended, any repeatable offset pattern from 4" to 8" is acceptable. Caution must be exercised to assure that end joints are no closer than 2" from a fastener in the shingle below and that side laps are no less than 4" in succeeding courses. Refer to course applications steps for specific instructions.

Starter Course (see illustration on the right)

- (A) Trim tabs off all starter course shingles.
- **(B)** Trim 6-1/2" off rake end of first shingle. Extend 3/8" beyond rake and eaves, and fasten.
- (C) Complete rest of starter course.

Note: Start at rake edge. Use five fasteners for each shingle, placed $2^{\prime\prime}$ to $3^{\prime\prime}$ up from the eaves.

First Course

(A) Apply first course starting with a full shingle, even with the starter course. Fasten securely according to instructions.

Note: Complete course with full shingles. The fastening line should not be used for course alignment of shingles.

Second Course

- **(B)** Begin second course by positioning first shingle 6-1/2" from the end of the underlaying shingle, and flush with the top of the overlay tab (dragon tooth).
- (C) Leave 5-5/8" exposure, fasten securely, and trim excess overhang at rake.

Note: Complete course with full shingles.

Third Course

(D) Begin by positioning the first shingle 6-1/2" from the end of the underlying shingle, flush with the top of the dragon tooth pattern. Complete by repeating step (C).

Note: Complete course with full shingles.

Fourth Course

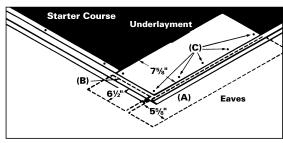
(E) Begin the fourth course by positioning the first shingle an additional 6-1/2" from the end of the underlying shingle, flush with the top of the dragon tooth pattern. Complete by repeating step (C).

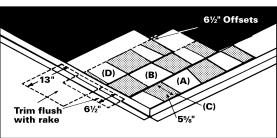
Note: Complete course with full shingles.

Fifth Course

(F) Begin fifth course by positioning full shingle flush with rake edge and leave 5-5/8" exposure. Complete by repeating step (C).

Note: Complete course with full shingles. For succeeding courses repeat steps for second, third, fourth and fifth courses.

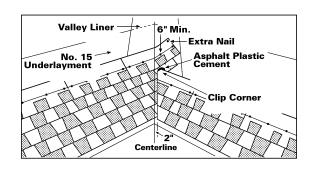




3 Valley Construction

A closed cut valley is recommended and is applied as follows:

- (A) Lay a 36" wide valley liner of smooth surface roll roofing or Owens Corning WeatherLock underlayment or equivalent product. Fasten on outer edges only.
- **(B)** Lay all shingles on one side of valley and across centerline of valley a minimum of 12". Fasten a minimum of 6" away from centerline on each side of valley.
- (C) Strike a chalk line 2" from the centerline 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.
- (D) A metal valley is an acceptable alternative. A woven valley is also acceptable for Oakridge® PRO 30^{TM} .



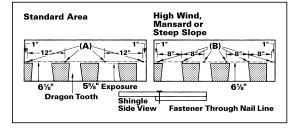
4 Fastening Instructions

Place fasteners 6-1/8" from bottom edge of each shingle and 1" from each end.

(A) Use four fasteners in normal wind areas.

(B) Use six fasteners per shingle for mansard construction. Use of six fasteners is recommended in high wind areas.

Note: Fasten on the 6-1/8" nail line to penetrate both segments of the shingle.



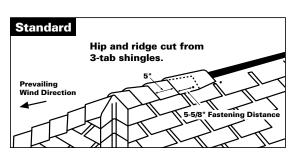
5 Hip & Ridge Application

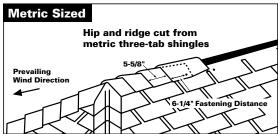
High Ridge Hip & Ridge and High Style® Hip & Ridge available by region. If cutting three tabs for Hip & Ridge shingles, adhere to the following instructions.

Cut full three-tab shingles into three 12" x 12" (13-1/4" x 13-1/8" metric) Hip & Ridge shingles. Start hips at the eave and work up to ridge. Apply ridge only after hips have been applied, beginning on end of ridge opposite prevailing wind direction. Leave 5" (5-5/8" metric) exposure per shingle for Hip & Ridge application. Bend over the ridge; fasten on each side 5-5/8" (6-1/4" metric) from exposed end, 1" up from the edge. Cover exposed nails with asphalt plastic cement.

For more information on Hip & Ridge shingle application refer to Owens Corning's "How to Apply Hips & Ridges" (Pub. No. 5-RR-18491).

Note: For best appearance, when using three-tab shingles for Hip & Ridge, apply double thickness (two 12" x 12" shingles or 13-1/4" x 13-1/8" if using metric-sized products). *Do not* cut Hip & Ridge shingles from full size laminated shingles.





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6 Precautionary Notes

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

(A) Roof Deck: Recommended roof decks are 6" maximum width, 25/32" minimum thickness wood sheathing, or 3/8" minimum thickness plywood sheathing. Use plywood decking recommended by the American Plywood Association, Underwriters Laboratories, Inc., or local building codes.

These Owens Corning shingles have been tested and rated as Class A by Underwriters Laboratories when these shingles are applied over recommended decks. If other decks are used, the resulting construction may not qualify as Class A.

Regardless of deck type used, the roofing installer must:

- 1. Install the deck material in strict compliance with the deck manufacturer's instructions.
- Prevent the deck from getting wet before, during and after installation.
- **3**. Insure the attic ventilation meets or exceeds FHA Minimum Property Standards.

Note: All roof structures, especially Mansard style construction, must have complete through ventilation from bottom to top to prevent entrapment of moisture-laden air (winter) and hot air (summer). Both conditions may cause premature shingle failure. It is extremely important to maintain adequate ventilation when reinsulating or reroofing. Structures with bath and kitchen vents, which are vented directly into the attic space, may require additional ventilation to remove excess moisture vapor.

- (B) Handling: Use extra care in handling shingles when the temperature is below 40° F. *Do not* drop bundles. Shingles can be broken easily in cold weather or their edges damaged in hot weather. *Do not* attempt to separate shingles by "breaking" them over another object such as a ridge.
- (C) Fastening: Owens Corning recommends nails as the preferred method of attaching shingles to wood decking or other nailable surface. Drive all fasteners until they are flush with the surface of the shingle. Special care must be taken in the use of pneumatic staples or nail guns. Staples are to be driven with a pneumatic stapler with crown parallel to length of shingle so that the entire crown bears tightly against the shingle but does not cut the shingle surface. Nails are to be driven straight so

the entire head is flush against the shingle but does not cut the shingle surface. An improperly adjusted pneumatic gun can result in raised fasteners causing sealing failure, raised tabs, leaks or blow-off.

Guidelines on fastener size, number and location must be followed. Failure to follow these instructions seriously reduces wind resistance. Owens Corning will not be responsible for any wind damage that occurs with shingles which have not been applied in accordance with these instructions.

- (D) Mansard or Steep Slopes: For slopes exceeding 60 degrees or 21 inches per foot, use six fasteners and four spots of asphalt plastic cement per shingle. All six fasteners must be spaced equally and placed in the fastening line. Place four spots of asphalt plastic cement, 1" in diameter, under each shingle immediately upon installation.
- (E) Storage: Store in a covered ventilated area at a maximum temperature of 110° F. Stack in a flat fashion (maximum of 16 bundles high). Protect shingles from weather when stored at the job site. Do not store near steam pipes, radiators, etc.
- (F) Hip & Ridge Shingles: These shingles should be cut from the back (smooth) side. In cool weather, shingles can be formed more easily to fit the ridge if they are stored in a warm indoor area, then taken out immediately before application.
- (G) All exposed material must be rated Class A by Underwriters Laboratories, to maintain a Class A system.

7 Reroofing

If old asphalt shingles are to remain in place, nail down or cut away all loose, curled or lifted shingles. Sweep the surface clean of all loose debris just prior to applying the new roofing. Ensure proper size and length of fasteners. If roofing over old wood shingles, cut back the old shingles at eaves and rakes and apply wood edging strips. Some local building codes may require the use of a No. 30 asphalt saturated felt over the old wood shingles prior to reroofing. Consult local building code authorities. The surface must be smooth before shingles are installed. Make deck smooth by nailing down all loose and curled shingles, protruding nails, etc. Install beveled wood feathering strips, if necessary.



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