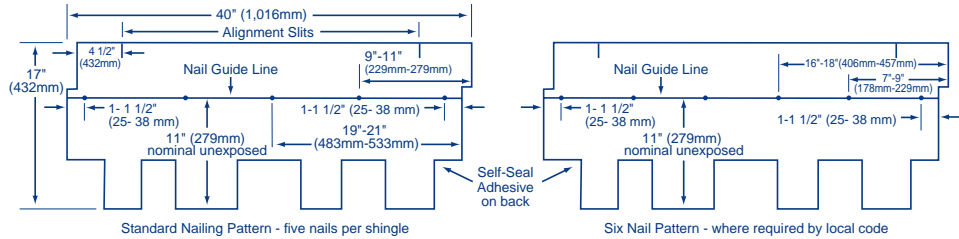


Fiberglass Class A Asphalt Roof Shingles APPLICATION INSTRUCTIONS

Note: These shingles must be nailed a nominal 11" (279mm) from bottom of shingles, as shown, to allow for penetration through the double ply area just above the tabs. Nails should remain unexposed.



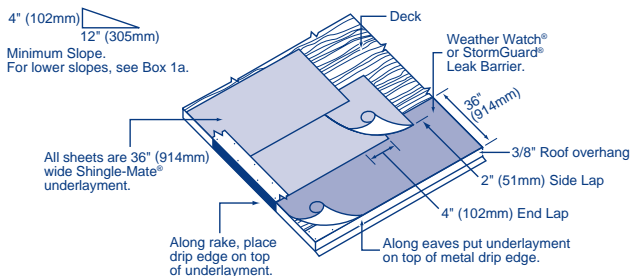
GENERAL INSTRUCTIONS

- **ROOF DECKS:** For use on new or reroofing work over well-seasoned, supported wood deck, tightly-constructed with maximum 6" (152mm) wide lumber, having adequate nail-holding capacity and smooth surface. Plywood decking as recommended by The Engineered Wood Assn. is acceptable. Plywood decks for Class A installations must be minimum 3/8" (10mm) thick or greater with underlayments as noted below. Shingles must **not** be fastened directly to insulation or insulated deck unless authorized in writing by GAF Materials Corporation. Roof decks and existing surfacing material must be **dry** prior to application of shingles.
- **UNDERLAYMENT:** Underlayment is required on new construction and required for reroofing when old roof is removed from the deck. Use only "breather type" material like GAF Materials Corporation Shingle-Mate[®] Underlayment or equivalent. Underlayments must be installed flat, without wrinkles.
- **FASTENERS:** Use of nails is recommended. (Staple specifications and application instructions are available from GAF Materials Corporation, Contractor Services Dept., 1361 Alps Road, Wayne, NJ 07470.) Use only zinc coated steel or aluminum, 10-12 gauge, barbed, deformed or smooth shank roofing nails with heads 3/8" (10mm) to 7/16" (12mm) in diameter. Fasteners should be long enough to penetrate at least 3/4" (19mm) into wood decks or just through the plywood decks. Fasteners must be driven flush with the surface of the shingle. Over driving will damage the shingle. Raised fasteners will interfere with the sealing of the shingles. For normal installation, five fasteners must be installed per shingle, a nominal 11" (279mm) up from the very bottom of the shingle, to penetrate both layers of the shingle. Fasteners must be installed approximately 1-1 1/2" (25-38mm), 9-11" (229-279mm) and 19-21" (483-533mm) from each side.
- **WIND RESISTANT:** These shingles have a special thermal sealant that firmly bonds the shingles together after application when exposed to sun and warm temperatures. Shingles installed in Fall or Winter may not seal until the following Spring. If shingles are damaged by winds before sealing or are not exposed to adequate surface temperatures, or if the self-sealant gets dirty, the shingles may never

- seal. Failure to seal under these circumstances results from the nature of self-sealing shingles and is not a manufacturing defect. To insure immediate sealing, apply 1 quarter-sized dab of asphalt plastic cement per shingle tab centered in from each side and 1" (25mm) up from bottom of the tab. The tab must be pressed firmly into the adhesive.
- NOTE: Application of excess asphalt plastic cement can cause blistering of the shingle.
- For maximum wind resistance along rakes, cement shingles to underlayment and each other in a 4" (102mm) width of asphalt plastic roof cement.
- NOTE: The film strips on the back of each shingle are to prevent sticking together of the shingles while in the bundle. Their removal is NOT required during application.
- **SLITS:** Slits and alignment notches are provided for both vertical and horizontal alignment of shingles as noted and illustrated above.
- **MANSARD AND STEEP SLOPE APPLICATIONS:** For roof slopes greater than 21° per foot (1750mm/m) (do not use on vertical side walls), shingle sealing must be enhanced by hand sealing. After fastening the shingle in place, apply one quarter-sized dab of adhesive per shingle tab centered in from each side and 1" (25mm) up from bottom of the tab (see Wind Resistant above). The tab must be pressed firmly into the adhesive.
- **EXPOSURE:** Nominally 5" (127mm) from the top of the cut-out to the top of the cut-out on an overlying shingle.
- **THROUGH VENTILATION:** All roof structures must be provided with through ventilation to prevent entrapment of moisture laden air behind roof sheathing. Ventilation provisions must at least meet or exceed current F.H.A., H.U.D. or local code minimum requirements.
- **NON-CORRODING METAL DRIP EDGES:** Recommended along rake and eave edges on all decks, especially plywood decks.
- **ASPHALT PLASTIC CEMENT:** For use as shingle tab adhesive. Must conform to ASTM D4586 Type I or II.

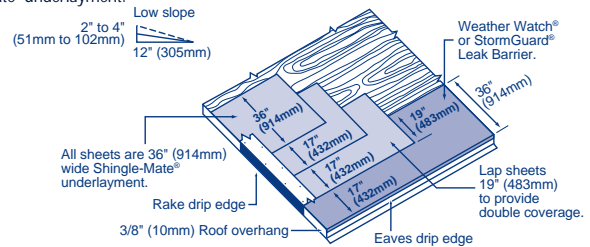
1 Underlayment: Standard Slope—4/12 (333mm/m) or more

Application of underlayment: Cover deck with one layer of underlayment installed without wrinkles. Use only enough nails to hold underlayment in place until covered by shingles. **Application of eave flashing:** Install eave flashing such as GAF Materials Corporation Weather Watch[®] or StormGuard[®] Leak Barrier in localities where leaks may be caused by water backing up behind ice or debris dams. Eave flashing must overhang the roof edge by 3/8" (10mm) and extend 24" (610mm) beyond the inside wall line.



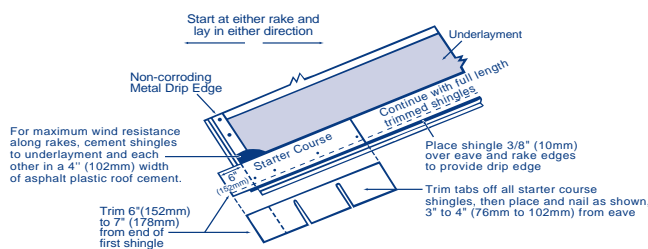
1a Underlayment: Low Slope 2/12-4/12 (167mm-333mm/m)

Application of underlayment and eave flashing: Completely cover the deck with two layers of underlayment as shown. Use only enough nails to hold underlayment in place until covered by shingles. Use blind nailing for eave flashings. At eaves and where ice dams can be expected, use one layer of GAF Materials Corporation Weather Watch[®] or StormGuard[®] Leak Barrier. Eave flashing must overhang the roof edge by 3/8" (10mm) and extend 24" (610mm) beyond the inside wall line. Where ice dams or debris dams are not expected, install 2 plies of Shingle-Mate[®] underlayment.



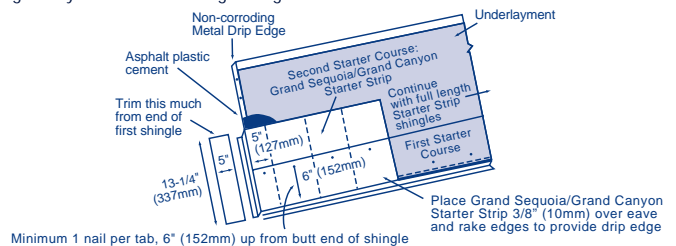
2 First Starter Course

Use of any GAF MC 3-Tab shingle is recommended. Apply as shown.



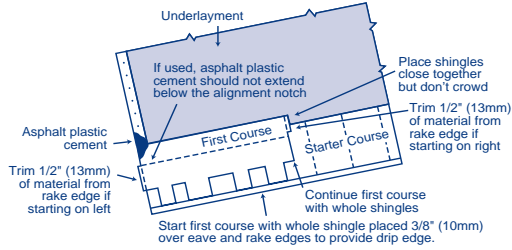
3 Second Starter Course

Use of Grand Sequoia/Grand Canyon Starter Strip is recommended. Trim 5" (127mm) from first 10" (254mm) section (1/2 tab) and apply the 35" (889mm) shingle directly over the top of the first starter course. Continue with full Starter Strip shingles flush with the first starter course. Shingles may be laid from left to right or right to left.



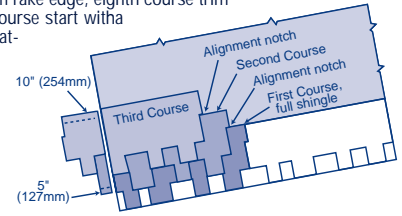
4 First Grand Sequoia Shingle Course

Apply the first Grand Sequoia shingle course as shown. Note that 1/2" (13mm) of material is to be trimmed from the rake edge. Continue with full shingles laid flush with the starter courses. Shingles may be laid from left to right or right to left. Do NOT lay shingles straight up the roof since this procedure can cause incorrect patterning and color blending on the roof and may damage the shingles.



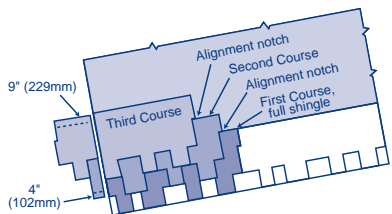
5a Second and Subsequent Courses "Structured Look" Option (Recommended)

For second course, trim 5" (127mm) from the rake edge and align shingle flush to rake edge. Fasten in place. Continue course with full shingles. For subsequent courses: third course trim 10" (254mm) from rake edge, fourth course trim 15" (381mm) from rake edge, fifth course trim 20" (508mm) from rake edge, sixth course trim 25" (635mm) from rake edge, seventh course trim 30" (762mm) from rake edge, eighth course trim 35" (889mm) from rake edge, ninth course start with a full shingle and continue previous pattern. A full shingle can be used to start any odd numbered course if necessary; however, to obtain the best appearance, follow instructions above. Strike a horizontal chalk line every six courses to assure proper alignment. Straight up racking not recommend, as the unique design pattern of these shingles is disrupted.



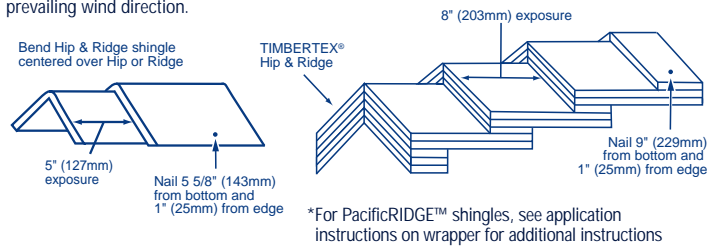
5b Second and Subsequent Courses "Natural Look" Option

For second course, trim 4" (102mm) from the rake edge and align shingle flush to rake edge. Fasten in place. Continue course with full shingles. For subsequent courses: third course trim 9" (229mm) from rake edge, fourth course trim 15" (381mm) from rake edge, and use a full shingle to begin the fifth course and continue previous pattern. Strike a horizontal chalk line every six courses to assure proper alignment. Straight up racking not recommend, as the unique design pattern of these shingles is disrupted.

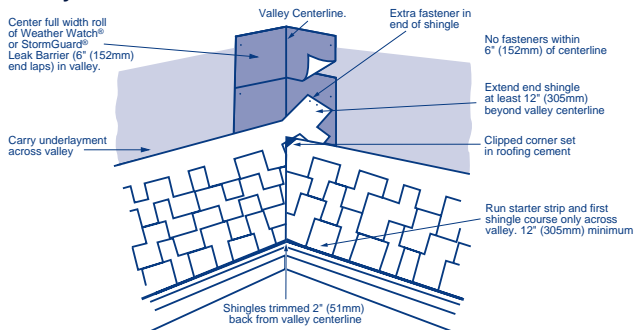


6 Hip and Ridge Cap Shingles

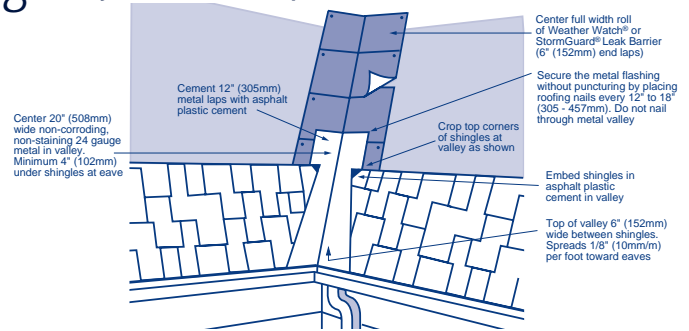
Use TimberTex®, Grand Sequoia/Grand Canyon or PacificRIDGE™* Ridge Cap shingles. Single, double or triple-thickness of shingles may be applied depending on desired appearance on roof. **Coverage:** For single application coverage, one bundle of Grand Sequoia/Grand Canyon Ridge Cap shingles covers 33-1/3 lineal feet (10.3 meters). For double application, coverage per bundle is 16.5 lineal ft. For triple layer application, coverage per bundle is 11.0 lineal ft. **Application:** For single application, start with double thickness of precut Ridge Cap shingles and continue remainder with single thickness. For double application, start with triple thickness. For triple application, start with quadruple thickness. Apply laps away from prevailing wind direction.



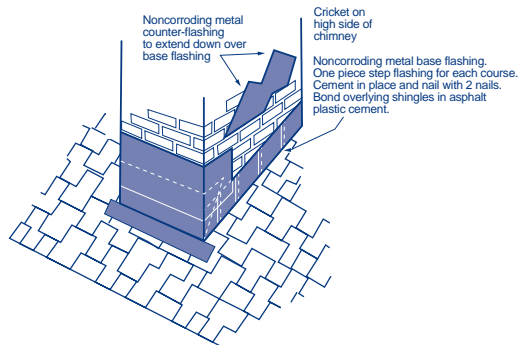
7 Valley Construction – Closed Cut



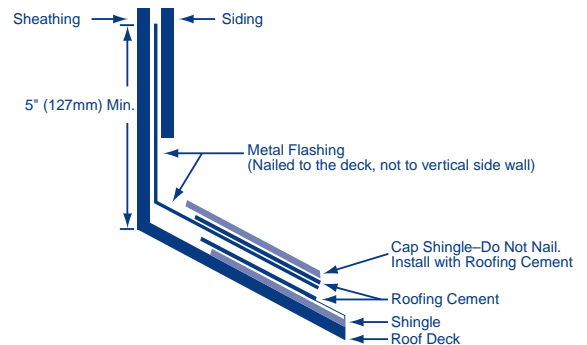
8 Valley Construction – Open



9 Chimney Flashing



10 Wall Flashing



Precautionary Notes

These shingles are fiberglass, self-sealing asphalt shingles. Because of the natural characteristics of the high quality waterproofing material used, these shingles will be stiff in cold weather and flexible in hot weather.

1. Bundles should not be dropped on edge nor should attempt be made to separate shingles by "breaking" over ridge or other bundles.
2. Handle carefully. Shingles can easily be broken in cold weather or their edges damaged in hot weather.
3. All exposed materials must be of Class A type.
4. Storage should be in a covered, ventilated area—maximum temperature 110°F (43°C). Store on flat surface. Weight equalization boards must be used if pallets are to be double stacked. Shingles must be protected from weather when stored at job site. Do not store near steam pipes, radiators, etc., or in sunlight. All rolled product must be stored on ends.
5. If shingles are to be applied during PROLONGED COLD periods or in areas where airborne dust or sand can be expected before sealing occurs, the shingles MUST be hand sealed. See Wind Resistant instructions above.

Re-Roofing

If old asphalt shingles are to remain in place, nail down or cut away all loose, curled or lifted shingles; replace with new; and just before applying the new roofing, sweep the surface clean of all loose debris. Since any irregularities may show through the new shingles, be sure the underlying shingles provide a smooth surface. Fasteners must be of sufficient length to penetrate the wood deck at least 3/4" (19mm) or just through plywood. Follow other above instructions for application.

Note: Shingles can be applied over wood shingles when precautions have been taken to provide an acceptable smooth surface. This includes cutting back old shingles at eaves and rakes and installing new wood edging strips as needed. Make surface smooth and use beveled wood strips if necessary. Install #30 underlayment to maintain Class A rating.

This product is sold with an express LIMITED WARRANTY only. A copy of the LIMITED WARRANTY stating its terms and restrictions is printed on the product wrapper or may be obtained from the distributor of this product or directly from GAF Materials Corporation. Any deviation from printed instructions shall be the responsibility of applicator and/or specifier.