



technical bulletin

**Asphalt Roofing
Manufacturers Association**

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Reroofing With Metric Shingles



This bulletin provides general guidelines for reroofing using “metric” type asphalt shingles. Metric shingles are slightly larger than standard 12" x 36" shingles and typically measure 13 1/4" x 39 3/8". Variations of two basic application methods are commonly used: bridging and nesting. Either method will provide satisfactory results when properly applied. Additional reroofing recommendations may be found in ARMA’s Residential Asphalt Roofing Manual.

Bridging

Bridging over an existing 5" exposure strip shingle roof:

The advantage of using the bridging method is that it requires fewer shingles than the nesting method.

1) Starter Strip

Remove the tab portion from a full-size shingle and position the remaining strip over the existing roof (with the factory-applied adhesive strip along the eaves). Cut a half tab (6 9/16") from the rake end and apply the remaining portion (13 1/4" x 32 13/16") at the eaves, overlapping the butts of the existing second course. Continue the starter strip by applying full-length shingle strips (without tabs) evenly along the existing roof at the eaves.

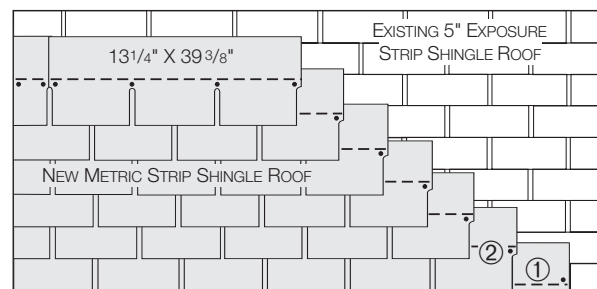
Note: The existing roof should overhang the eaves far enough to carry water off into the gutter. If this is not the case, cut and apply the starter strip so that it will provide sufficient overhang for proper drainage.

2) First Course

Start with a full shingle applied flush with the starter strip along the eaves. This course should overlap the butts of the third course of the existing roof.

3) Second and Succeeding Courses

Remove a half tab (6 9/16") from the rake end of a full-size shingle and apply the remaining portion (13 1/4" x 32 13/16") over the headlap of the first course, providing a first course exposure of 5 5/8". Continue with full-length shingles. Begin each succeeding course – through the sixth – with a shingle from which an additional half tab (6 9/16") has been removed to establish an across-and-up application pattern. Start the seventh course with a full shingle.



1. Starter Strip 7 5/8" wide (tabs cut from shingle)
2. First and succeeding courses consisting of full-width shingles

Figure A: Bridging application of metric strip shingles over 5" exposure three-tab strip shingles

Note: These recommendations were prepared by and have the approval of the Asphalt Roofing Manufacturers Association for informational purposes only. They are not intended to revoke or change the requirements or specifications of the individual roofing material manufacturers or local, state and federal building officials that have jurisdiction in your area. Any question, or inquiry, as to the requirements, or specifications of a manufacturer, should be directed to the roofing manufacturer concerned.

Nesting

The advantage of nesting is that it minimizes the uneven appearance which can be caused by the existing roof material. Shingle exposure will be the same as in the existing roof – except for the first course, which will have an exposure of either 1 3/4" or 3 5/8" (depending on the existing roof). Approximately 12% more material will be required than for bridging, except when reroofing over metric type shingles which requires no additional material.

Nesting over an existing 5" exposure three-tab strip shingle roof:

1) Starter Strip

Remove the tabs and 2 5/8" from the head of a full-size metric shingle so that its width is equal to the exposure of the existing shingles. Position the remaining strip over the existing roof (with the factory-applied adhesive strip along the eaves). Cut a half tab (6 9/16") from the rake end and apply the remaining portion (13 1/4" x 32 13/16") at the eaves. Continue the starter strip by applying 5" x 39 3/8" metric shingle strips evenly along the existing roof at the eaves.

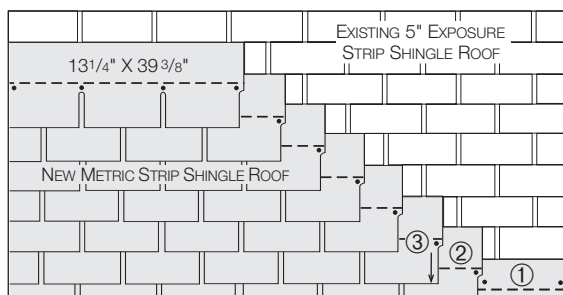
Note: The existing roof should overhang the eaves far enough to carry water off into the gutter. If this is not the case, cut and apply the starter strip so that it will provide sufficient overhang for proper drainage.

2) First Course

Remove 3 1/4" (or less if the starter strip is wider than 5") from the tabs of a full-size metric shingle and apply the remaining portion of the shingle (10" x 39 3/8") so that it fits between the butts of the existing third course. This course must also be applied evenly along the eaves edge of the new starter strip.

3) Second and Succeeding Courses

Remove a half tab (6 9/16") from the rake end of the first shingle in the second course, and continue with full-width metric shingles for the remainder of the course, placing the top edge of each new shingle against the butt edge of the old shingle in the course above. This method will create an exposure of 5" after the first course. Begin each succeeding course – through the sixth – with a shingle from which an additional half tab (6 9/16") has been removed to establish an across-and-up application pattern. Start the seventh course with a full shingle.



1. Starter Strip 5" wide
 2. First course 10" wide
 3. Second and succeeding courses full-width shingles
 Note: Exposure first course 1 3/4"; All other courses 5" exposure

Figure B: Nesting application of metric strip shingles over 5" exposure three-tab strip shingles

Nesting over an existing 5 5/8" exposure three-tab metric shingle roof:

1) Starter Strip

Remove the tabs and 2" from the head of a full size metric shingle so that its width is equal to the exposure of the existing shingles. Position the remaining strip over the existing roof (with the factory-applied adhesive strip along the eaves). Cut a half tab (6 9/16") from the rake end and apply the remaining portion (13 1/4" x 32 13/16") at the eaves. Continue the starter strip by applying 5 5/8" x 39 3/8" metric shingle strips evenly along the existing roof at the eaves.

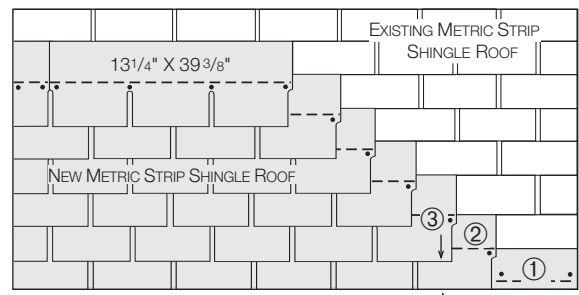
Note: The existing roof should overhang the eaves far enough to carry water off into the gutter. If this is not the case, cut and apply the starter strip so that it will provide sufficient overhang for proper drainage.

2) First Course

Remove 2" (or less if the starter strip is wider than 5 5/8") from the tabs of a full-size metric shingle and apply the remaining portion of the shingle (11 1/4" x 39 3/8") so that it fits between the butts of the existing third course. This course must also be applied evenly along the eaves edge of the new starter strip.

3) Second and Succeeding Courses

Remove a half tab (6 9/16") from the rake end of the first shingle in the second course, and continue with full-width metric shingles for the remainder of the course, placing the top edge of each new shingle against the butt edge of the old shingle in the course above. This method will create an exposure of 5 5/8" after the first course. Begin each succeeding course – through the sixth – with a shingle from which an additional half tab (6 9/16") has been removed to establish an across-and-up application pattern. Start the seventh course with a full shingle.



1. Starter Strip 5 5/8" wide
 2. First course 11 1/4" wide
 3. Second and succeeding courses full-width shingles
 Note: Exposure first course 3 5/8"; All other courses 5 5/8" exposure

Figure C: Nesting application of metric strip shingles over 5 5/8" exposure three-tab metric shingles