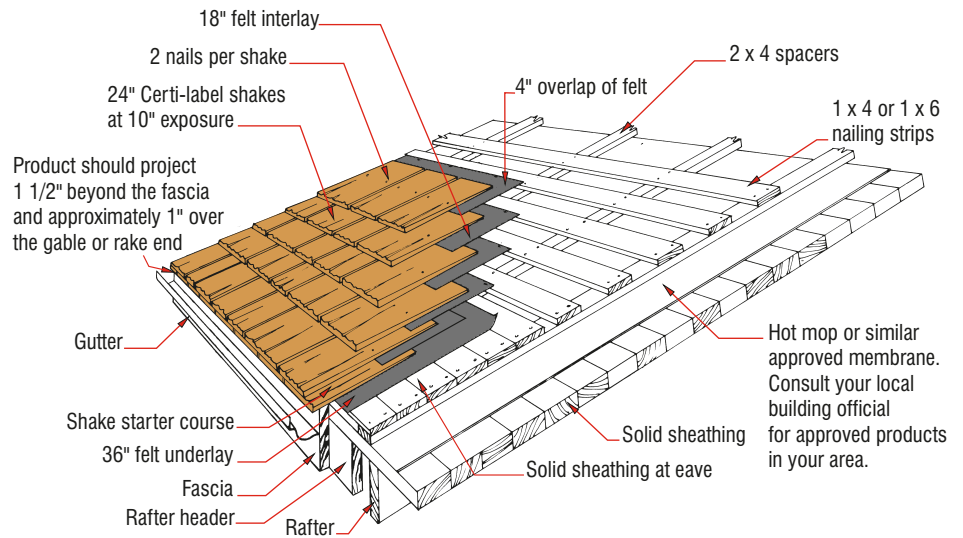


The minimum roof slope on which Certi-label shakes are recommended is 4:12 and for Certi-label shingles, 3:12. It is possible, however, to apply Certi-label shakes or shingles successfully to solid sheathed roofs of lower slope providing a special method of application is followed (Figure 7). The prescribed method provides a double roof on which the Certi-label shakes or shingles are applied to a lattice-like framework embedded in a bituminous surface coating.

A hot mop or similar approved membrane should be applied over the roof deck. Consult your local building official for approved products in your area. With the final hot-mop application 2 x 4 spacers of Western Red Cedar or preservative treated lumber are embedded in the bituminous coating. These spacers are installed over the rafters and extend from eave to ridge. Check with your local building official for their preference in your area.

Next, 1 x 4 or 1 x 6 nailing strips, spaced according to the weather exposure selected for the Certi-label shakes or shingles, should be nailed across the spacers to form a lattice-like nailing base. For example, if 24" shakes are to be installed at a weather exposure of 10", the nailing strips would also be spaced at 10" on centers. When 1 x 4 spaced sheathing is installed at 10" on center, additional 1 x 4 boards must be installed.

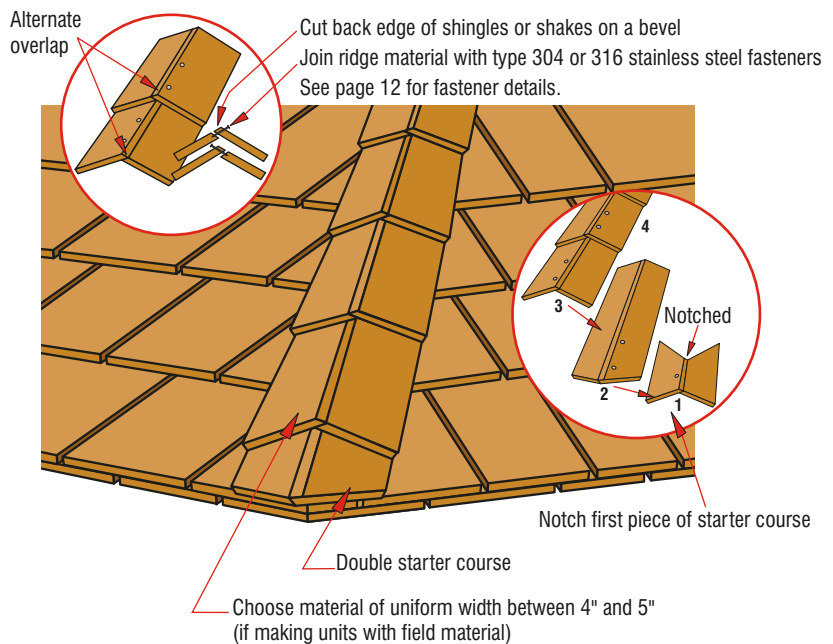
Finally, the Certi-label shakes or shingles are applied in the normal manner with a starter course at the eave and felt interlay between each course of shakes (Figure 7).



**Figure 7: Certi-label Shake Application to Low Slope Roofs**

**Certi-label Hip And Ridge Details**

Intersecting roof surfaces at hips and ridges should be capped to ensure a weather-tight joint. Site-made or factory-assembled hip and ridge units may be used, but both types must have alternate overlaps and concealed nailing (Figure 8). When ridge cap and field product are the same length and grade, the weather exposure of the ridge cap should be the same exposure as the field product of the roof. Nails must be longer than those used on the field of the roof and of sufficient length to penetrate 3/4" into or completely through the sheathing. Install a strip of felt, eave protection material or metal over hip or ridge under the ridge or hip cap. If longer or shorter ridge cap is used, adjust exposure accordingly.



**Figure 8: Certi-label Hip and Ridge Application**