

Wood Deck

Wood decks form an ideal base over which to apply Certi-label® shakes or shingles, since they can be attached in the conventional manner.

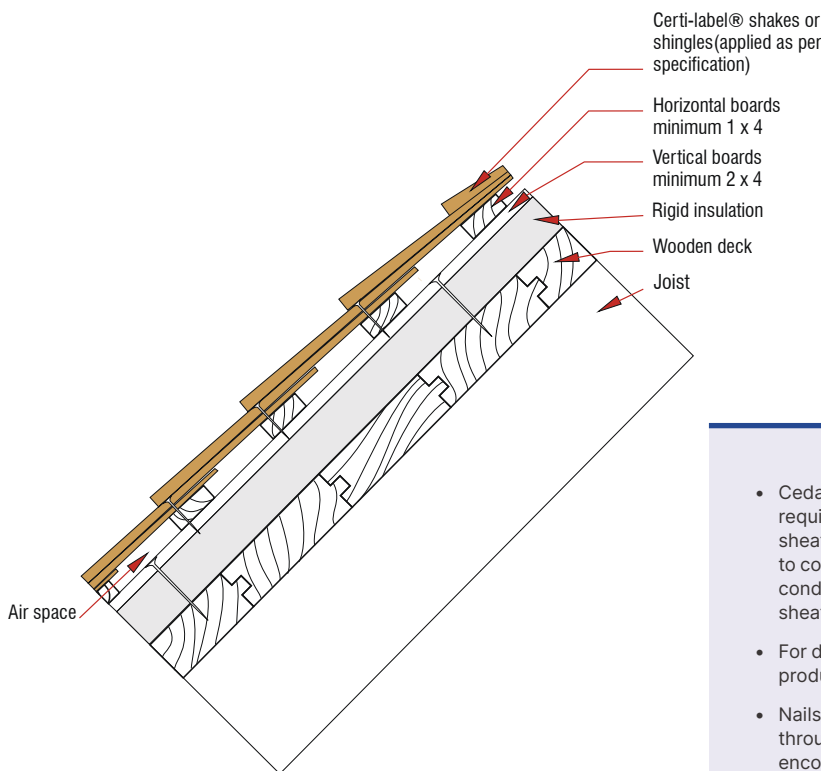
Rigid insulation raises the issue of how to fasten Certi-label® shakes or shingles. The use of abnormally long nails driven through the Certigrade® shingles, the insulation and into the deck below is generally unsatisfactory. Horizontal strapping will be required to overcome the fastening difficulties. When strapping is used, fewer nails penetrate through the insulation to the deck and greater thermal efficiency is achieved by reducing the number of conductors. In addition, the lengths of the nails may be chosen to prevent the points from protruding through the deck where they may mar the inside face.

If ice-damming is a potential problem or if reverse condensation is likely to occur, such as may be encountered in an ice arena, a cold roof system should be used in conjunction with horizontal strapping and ventilation must be provided at the eaves and at the peak. In buildings such as ski cabins that may be subjected to heavy snow loads, it is usually necessary to fasten wood members (typically 2 × 4 on edge) from ridge to eave on the roof deck and place the rigid insulation between. Strapping is then applied across the top of these members, giving a ventilated air space and avoiding compression of insulation.

A false plywood deck over insulation (not shown) can be a good choice. Space the false deck over the insulation by installing 2 × 4 or greater vertical members that are securely fastened through the insulation into the rafters. Attach the plywood to the vertical members and install the cedar roof over standard underlayment.

Figure 17: Specialty Roof Deck-Vented Roof

For vertical runs greater than 25 feet, contact a building envelope specialist for adequate ventilation requirements.



TIPS:

- Cedar needs to breathe. If spray foam or foam boards are required to be applied to the bottom of the solid plywood sheathing (not spaced sheathing), it is strongly recommended to consult a building envelope specialist for potential issues of condensation and ultimate biodegradation of the solid plywood sheathing.
- For direct to deck application, consider using Certi-Last® products and also refer to high humidity details in this manual.
- Nails: If the Certi-label® shakes or shingles are nailed directly through rigid insulation, a number of problems may be encountered. For instance, the longer nails have thicker shanks which tend to split the Certi-label® shakes or shingles.
- Product movement may cause a reduction in insulation efficiency. For this reason, the use of strapping or a false plywood deck is again recommended.