

Rigid Insulation

Numerous types of rigid insulation are now in use, and may be made from expanded polystyrene beads, rigid urethane laminate, low density fiberboard, or from fast-setting liquids poured on-site. They vary in thickness up to more than 2", as well as in length and width depending upon the manufacturer. All these types are efficient insulators and are usually of sufficient density to hold the weight of a normal roofing material without the need for lumber bridging. If you live in an area

where snowfall is prevalent, please consult your local building code official for snow load requirements. A ventilation system between the sheathing system and the bottom of the shakes or shingles is recommended when installing directly to the solid plywood deck.

If shakes or shingles are applied over insulation, ventilation is required. As a minimum, nailing strips are applied under shingles. For areas of high humidity Certi-Last® pressure-impregnated preservative-treated product is recommended.

COLD ROOF SYSTEM DETAILS

Certi-label® shakes and shingles are an excellent roofing material for cold weather areas that experience heavy snowfall and severe temperature extremes. Certi-label® shakes and shingles offer the advantages of durability, superior wind resistance and good thermal and acoustical properties. As with any other roofing material, however, their best performance depends upon proper design, sound construction practice and correct installation.

In cold weather areas and particularly in mountain regions that experience very heavy snowfall, the cold roof - or vented roof system - is recommended. The principle of this system is to allow a constant flow of cold air above the insulation but below the roofing material. With other roofing systems, ice buildup along the eaves can be a problem. Heat escapes from the insulation and melts snow, which runs down the roof to the cold overhangs where it freezes, causing water to back up and sometimes penetrate the roof systems. A properly installed, vented cold roof eliminates this problem. Venting space should be sufficient to allow a free flow of air from eave to ridge.

There are a number of important considerations that influence roof performance in areas of heavy snowfall, particularly mountain regions.

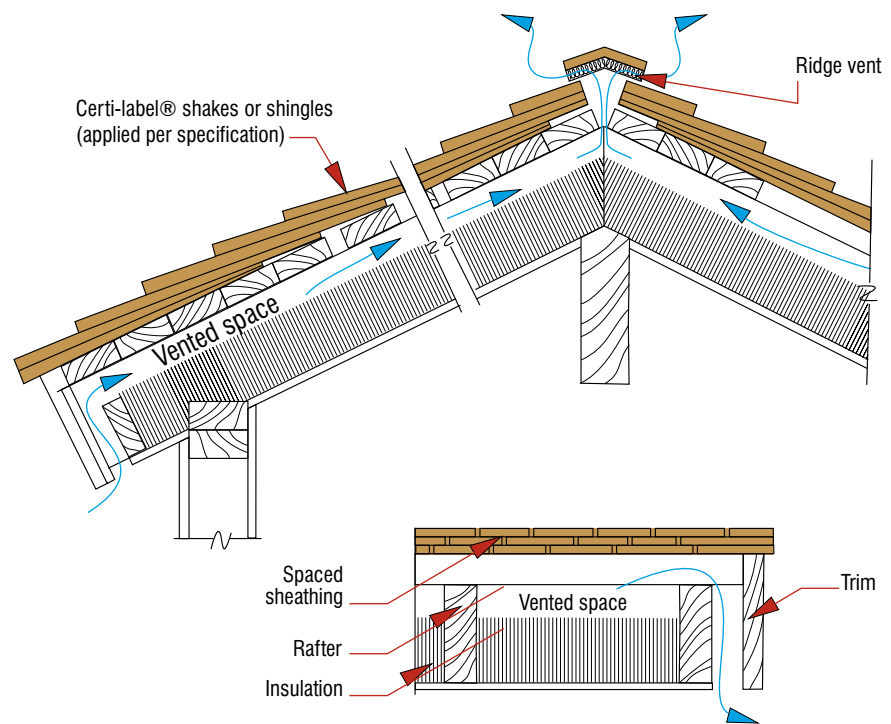


Figure 18: Gable Roof

Design, of course, is very important. The steeper the roof the better the performance. Chimneys should be located at the ridge or gable ends away from possible snow pressure on the slopes. Plumbing pipes should be located on inside walls and should be

extended between the rafters and vented at the ridge. If this is not practical then plumbing vent pipes should be galvanized iron, well anchored inside the roof. (Plastic vent pipes extending through the roof may be dislodged by sliding snow.)