



Installation and Application Recommendations for Vented Nailable Base Products

Rmax Vented Nailable Base-3 is a superior product for use in applications where a vented, nailable surface is needed to dissipate heat and moisture for design or warranty reasons. The majority of shingle manufacturers have a warranty requirement that restricts application directly to an insulated deck, thus requiring a vented nailbase product. Vented Nailable Base-3 provides a 7/16" OSB nailable surface over a 3/4" vent space. Due to the excellent insulating abilities of this product, any "thermal short circuits", gaps or open spaces built into the roof assembly can cause visible effects at the roof covering. These effects are most readily seen as buckles or ridges in the roof covering. This Technical Bulletin addresses the methods recommended to prevent "thermal short circuits" and their effects.

A "thermal short circuit" is defined for the purposes of this bulletin as a direct link between the heated roof deck and the roof covering. The most common occurrence of this is when vented nailbase is laid directly onto a steel or wood deck and gaps are left between the 4' x 8' insulation panels. The heated air from the structure below finds its way directly to the underlayment and shingles bridging these gaps. This effect may result in a windowpane effect at a minimum and large buckles or ridges in severe cases. Rmax theorizes the thermal expansion created in the shingles and underlayment in this direct stream of heated air is greater than the majority of the roof covering not exposed to this heat source.

The following are Rmax's recommendations to mitigate these problems:

1. Use a separate base layer of Rmax insulation under the Vented Nailable Base-3 with the joints staggered in all directions. This will virtually eliminate any direct paths for heat or moisture migrating to the roof covering.
2. If multiple layering of insulation is not an option, use Rmax Advantage Vented Nailable Base-3. This system offsets the joints of the insulation material and the nailable surfaces. Thus, any thermal or moisture contribution from the roof deck is channeled into the vent spaces of the nailable surface dissipating the heat and moisture.

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3. Vented Nailable Base-3 is one component of the venting system. Ridge and soffit vents are other components of a ventilated roof system. These components must be combined in a balanced assembly for the ventilation system to be effective. Recommendations of the vent manufacturer or other design professional should be followed. Specific design considerations should be made to ensure ventilation at hips and valleys.
4. An effective vapor/air retarder should be used on the roof deck to minimize intrusion of these factors into the roof assembly. The roof system designer should specify the proper use of this component.

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