



TECHNICAL BRIEF | #99-003

Direct Deck Nailing

A common method of roof tile application has the tile set directly onto the felted roof deck and fastened in accordance with the manufacturer's recommendation and code approval. Tiles fastened directly to the roof deck must be installed in accordance with 1994 UBC Table 15-D-2, which requires that a No. 11 gauge, corrosion-resistant nail penetrate 2" into the sheathing or through the thickness of the sheathing, whichever is less.

The problem arises when tiles are installed on roof eaves with exposed under surface. When fastening the tile per code, it is possible that the nail points may penetrate the sheathing, resulting in an unacceptable visual appearance.

The method used to address this problem has been to install a 1"x 2" batten on exposed areas and fasten with No. 12 gauge nails that do not penetrate the sheathing. While this resolves the fastening issue, it may also slightly elevate the head of the fastened tile above the normal plane of the roof.

While both applications are consistent with code, they represent potential aesthetic points of contention that deserve attention.

One method of addressing both issues is to substitute 3/8" lath for the 1"x 2" batten. The lath does not elevate the tile above its normal plane, but does provide enough additional wood to satisfy the requirement for 2" penetration without piercing through the sheathing. Tile fastening in this application would require two No. 12 gauge nails per tile.

For more information on tile roofing, please visit our website at tileroofing.org or email info@tileroofing.org for specific inquiries.