



NRCA
PROCertification®

Performance Exam Mockup Design for Clay and Concrete Tile Roof Systems

Mockups for clay and concrete tile system performance exams must resemble the characteristics of most steep-slope roofs. These characteristics are essential to ensure standard testing conditions are achieved and fair performance exams are administered. All clay and concrete tile system mockups must include the following characteristics:

1. A wood deck capable of supporting two times its intended total load. Deck material must be one of the following:
 - A minimum of four-ply, nominal thickness of 1/2 -inch-thick (actual thickness of 15/32-inch thick) plywood installed over supports spaced no more than 16 inches on-center
 - A minimum four-ply, nominal thickness of 5/8-inch-thick (actual thickness of 19/32-inch-thick) plywood installed over supports spaced no more than 24 inches on-center
2. A slope of 4:12
3. A total field area of approximately 54 square feet
4. One 16-inch sidewall along the shorter (left) edge extending 10-inches above the edge
5. One 16-inch headwall along the shorter (left) upslope edge, extending 10-inches above the edge
6. One 59-inch-long valley with its upslope end terminating into the headwall
7. One 1-inch x 4-inch fascia and 1-inch x 2-inch trim board installed at the longer (right) rake edge end for installing rake accessory tiles
8. One 48-inch-wide x 17-inch-long slope extension off the back of the longer (right) slope to form a ridge
9. One vent pipe penetration 2 inches in diameter located 24-inches from right rake edge and 22'-inches upslope from the eave edge

NRCA also recommends a separation sheet, such as rosin building paper, be affixed on steep-slope mockup wood decks, for performance assignments requiring self-adhering underlayment, for easier material removal after exam completion.



This clay and concrete tile systems mockup only represents a concept design. It is designed for maximum compactness, portability, ease of storage and to meet the characteristic requirements listed in this document. The mockup must be constructed using the indicated dimensions and slope. NRCA does not provide engineered drawings for the construction of any mockup. Determining mockup strength, weight capacities and durability are the responsibilities of those constructing mockups. The drawing below includes dimensions and general appearance characteristics but is not shown to scale.

