ATTACHMENT OF CLAY OR CONCRETE “S” ROOF TILE–2019 CBC

Disciplines: Structural

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Division of the State Architect (DSA) documents referenced within this publication are available on the DSA Publications webpage.

PURPOSE: This Interpretation of Regulations (IR) provides guidelines for code-compliant installation of “S” roof tiles on construction projects under DSA's jurisdiction.

Note: This IR is not applicable to roof tiles with an interlocking channel, and it is limited to maximum allowable stress design wind speed of 85 mph, and maximum mean roof height of 60 feet.

GENERAL: Clay or concrete “S” roof tile attachments are acceptable as shown on attached Figure 1A. For additional requirements, refer to California Building Code (CBC) Sections 1507.3 and 1513 and Table 1507.3.7.

Alternatively, clay or concrete “S” roof tile attachments meeting the requirements of IR 15-2: Clay and Concrete Roof Tile Materials and Application, are acceptable.

INSPECTION: The project inspector must provide continuous inspection of the attachment of the roof tile. No installation of roof tiles may be started without DSA-approved plans and details, including any contractor substitutions of roof tile systems.

REFERENCES:

2019 California Code of Regulations (CCR) Title 24
Part 2: California Building Code (CBC), Sections 1507.3 and 1513
Fig. 1A

1 fastener to wood strip

'S' roof tile

Height as required to fully support cover portion of tile

Continuous sound soft grain wood strip attached to roof sheathing with fastener (8d min.) at 12" o.c. (Staggered toe-nails each side when height of strip is greater than 1½")

11/4" net

Fig. 1B

Tile tie wire to continuous tie or wire fastener roof sheathing

1 fastener to roof sheathing

All tile installations on roof slope 7:12 and greater require tile lock device at bottom of each tile to prevent uplift

'S' roof tile

Fig. 1C

Twist continuous tie wire loop as required at tile tie wires to prevent rotation of tile

Equal angle at each tile tie wire

Continuous tie

'S' roof tile