



DSA Structural Amendments under review are highlighted in Marginal Markings

**Template 15-10**

**2001 CBC - Chapter 15**

**ROOFING AND ROOF STRUCTURES**

**Section - TABLES**

**Subsection(s) - Table 15-E**

TABLE 15-E—BUILT-UP ROOF-COVERING APPLICATION

|   | MECHANICALLY FASTENED SYSTEMS   | ADHESIVELY FASTENED SYSTEMS   |
|---|---|---|
| 1. Deck conditions                                  | Decks shall be firm, broom-clean, smooth and dry. Insulated decks shall have wood insulation stops at all edges of the deck, unless an alternative suitable curbing is provided. Insulated decks with slopes greater than 2 units vertical in 12 units horizontal (16.7% slope) shall have wood insulation stops at not more than 8 feet (2438 mm) face to face. Wood nailers shall be provided where nailing is required for roofing plies.<br><br>Solid wood sheathing shall conform to Sections 2312.2 and 2320.12.9 [for DSA/SS] 2322A.2 and 2326A.12.9 [for OSHPD 1, 2 & 4] 2322B.2 and 2326B.12.9.  | Provide wood nailers where nailing is required for roofing plies (see below).   |
| 2. Underlayment                                     | One layer of sheathing paper, Type 15 felt or other approved underlayment nailed sufficiently to hold in place, is required over board decks where openings between boards would allow bitumen to drip through. No underlayment requirements for plywood decks. Underlayment on other decks shall be in accordance with deck manufacturer's recommendations.  | Not required.   |
| 3. Base ply requirements<br>Over noninsulated decks | Over approved decks, the base ply shall be nailed using not less than one fastener for each 1 <sup>2</sup> / <sub>3</sub> square feet (0.124 m <sup>2</sup> ).  | Decks shall be primed in accordance with the roofing manufacturer's instructions. The base ply shall be solidly cemented or spot mopped as required by the type of deck material using adhesive application rates shown in Table 15-F.  |
| 4. Mechanical fasteners                             | Fasteners shall be long enough to penetrate 3/4 inch (19 mm) into the sheathing or through the thickness of the sheathing, whichever is less. Built-up roofing nails for wood board decks shall be minimum No. 12 gage, 7/16-inch (11.1 mm) head driven through tin caps or approved nails with integral caps. For plywood, No. 11 gage ring-shank nails driven through tin caps or approved nails with integral caps shall be used. For gypsum, insulating concrete, cementitious wood fiber and other decks, fasteners recommended by the manufacturer shall be used.   | When mechanical fasteners are required for attachment of roofing plies to wood nailers or insulation stops (see below), they shall be as required for wood board decks.   |
| 5. Vapor retarder<br>Over insulated decks           | A vapor retarder shall be installed where the average January temperature is below 45°F (7°C), or where excessive moisture conditions are anticipated within the building. It shall be applied as for a base ply.   |   |
| 6. Insulation                                       | When no vapor retarder is required, roof insulation shall be fastened in an approved manner. When a vapor retarder is required, roof insulation is to be solidly mopped to the vapor retarder using the adhesive application rate specified in Table 15-F. See manufacturer's instructions for the attachment of insulation over steel decks.   | When no vapor retarder is required, roof insulation shall be solidly mopped to the deck using the adhesive application rate specified in Table 15-F. When a vapor retarder is required, roof insulation is to be solidly mopped to the vapor retarder, using the adhesive application rate specified in Table 15-F. See manufacturer's installation instructions for attachment of insulation over steel decks. |
| 7. Roofing plies                                    | Successive layers shall be solidly cemented together and to the base ply or the insulation using the adhesive rates shown in Table 15-F. On slopes greater than 1 unit vertical in 12 units horizontal (8.3% slope) for aggregate-surfaced, or 2 units vertical in 12 units horizontal (16.7% slope) for smooth-surfaced or cap sheet surfaced roofs, mechanical fasteners are required. Roofing plies shall be blind-nailed to the deck, wood nailers or wood insulation stops in accordance with the roofing manufacturer's recommendations. On slopes exceeding 3 units vertical in 12 units horizontal (25% slope), plies shall be laid parallel to the slope of the deck (strapping method). |   |
| 8. Cementing materials                              | See Table 15-G.   |   |
| 9. Curbs and walls                                  | Suitable cant strips shall be used at all vertical intersections. Adequate attachment shall be provided for both base flashing and counterflashing on all vertical surfaces. Reglets shall be provided in wall or parapets receiving metal counterflashing.   |   |
| 10. Surfacing                                       | Mineral aggregate surfaced roofs shall comply with the requirements of UBC Standard 15-1 and Table 15-F. Cap sheets shall be cemented to the roofing plies as set forth in Table 15-F.  |   |