

Eave protection under-lay specifications for Unicrete Roof Tile

All Unicrete Tile installations are to conform to the 1995 National Building Code or the Building Code having jurisdictional authority (eg. 1997 Alberta Building Code). In addition the specific National Building Code document applying to concrete roof tile installation is the CAN/CSA-A220.1-M91. The relevant sections pertaining to eave protection are:

- 1) 1995 NBC – section 9.26.5 (Page 277)
- 2) 1997 ABC – section 9.26.5 (Page 325)
- 3) 1991 – 93 CSA-A220 – sections 4.5.2.1 (Page 34) 6.2.1.1 (Page 43) and the Inspection No.1 checklist (Page 68)

There is a very detailed underlayment and eave and valley protection testing criteria established in the CSA-A220.1 standard from pages 34 to 41. Table 4.2 “Summary of Underlayment Performance Requirements” on Page 41 summarizes the results a membrane manufacturer must test to in order to be used under tile in Canada. As of April 2006, there are two Polypropylene manufacturers who have completed the necessary testing; Feltex and RooftopGuard 2. The CSA-A-220 also allows the choices of the NBC and ABC 9.26.5.2. These lists of approved eave protection materials are:

- a) No 15 lb. asphalt-saturated felt laid in two plies lapped 480 mm and cemented together with lap cement,
- b) Type M or S roll roofing laid with not less than 100mm head and end laps cemented together with lap cement,
- c) Glass fiber or polyester fiber coated base sheets, or
- d) Self-sealing composite membranes consisting of modified bituminous coated material.

There is one discrepancy between these lists of accepted materials in the NBC and the ABC. The Alberta list includes the additional choice “e)” “0.15mm polyethylene laid as a continuous sheet without the use of cement.”

Unicrete accepts the two tested Polypropylene membranes listed above, or the first 4 items included in both the NBC and ABC code, but recommends the ABC choice “e)” 0.015mm poly option NOT be used in the concrete roof tile installation system.

Regarding section 9.26.5.1 in both the NBC and ABC as there is no difference in the texts, the usual application methods shall be followed. Generally the minimum width of the eave underlay material will be 900mm (44”) and will go at least 300mm (12”) on to the side of the roof over the interior partitions. There are many exceptions for unheated roof areas, large overhangs, roof slopes greater than 7/12, high snow load areas, etc. and the NBC code should be followed in all of these cases.

Valley underlay material is usually a 36” wide (18” on each side of the valley center line) peel and stick membrane used under the valley flashing.

For further information on Unicrete concrete tile roofs please contact the Unicrete office.

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