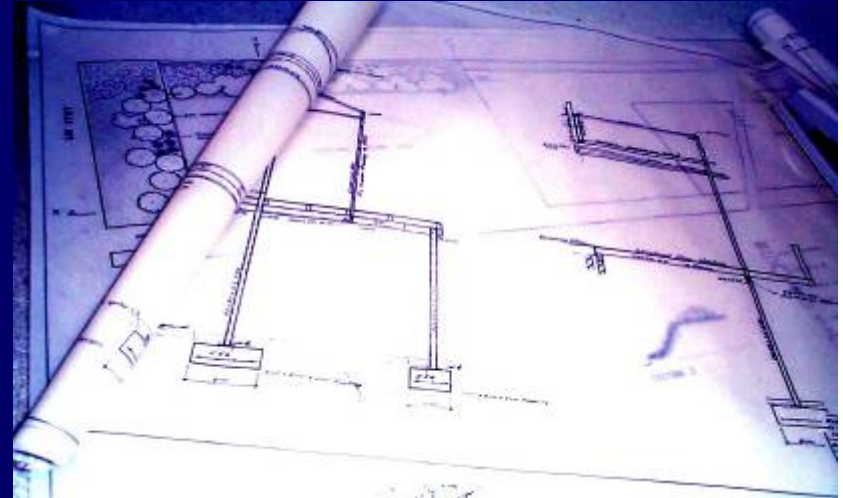




The **ELECTRONIC BLUEPRINT** is a series of building industry design and training publications, including an editable electronic manual for the design and specification of residential construction, provided free-of-charge to architects, consulting engineers and builders. They are encouraged to copy the drawings and specifications into their own contract documents, thus affording building product suppliers a unique opportunity to showcase their products.

Partner Housing Australasia



ELECTRONIC BLUEPRINT Distance Learning Package

Affordable Housing: Asia-Pacific Region

Roof Cladding

About the Training Package

This training package is part of the Electronic Blueprint Distance Learning program. It enables participants to acquire on-going training and professional knowledge of the building industry by distance learning techniques.

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To contact your tutor click on the address below, write the email and send. Your tutor will respond within 48 hours. info@electronicblueprint.com.au

Assignment

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Important Note

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Roof Cladding - Tiles

Tying Down Roof Tiles

In some countries, it is common practice to tie roof tiles down to the roof frame to prevent them from blowing off, while in other countries it is not common. If the tiles are tied down to the frame, the frame must also be tied down to the walls. It is recommended that tiles be tied down.

Tiles tied to steel battens (Thailand)



Interlocking tiles not tied to battens or roof frame, but including concrete gable and ridge strengthening.



The ridge and gable strengthening is much more substantial in India than in Sri Lanka, and therefore more likely to be effective in higher winds. In both cases, the tiles are interlocking.



India



Sri Lanka

Safety of Large Format Concrete Tiles

Some affordable houses are clad with large-format concrete roof tiles described as follows.

- “Large format” thin corrugated cement tile.
- Tile thickness is 9 to 10 mm.
- Exposed tile surface is approximately 500 x 500 mm.
- Tiles are manufactured using vibrating table & plastic moulds.
- The mix is approximately 1 part cement to 3.3 - 4.6 parts sand.
- The tiles are cured under plastic and painted manually.
- The pitch is approximately 27 degrees.
- Each tile is tied by two wire ties, one on each side to battens.
- No safety mesh is used.

There is concern over the safety of the roof tile system, during construction and during service.

Unless there is specific information supporting the long-term safety of large-format concrete tiles, it is recommended that they not be used.

Tile Manufacture – Thailand



Large Format Tiles - Thailand





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Roof Cladding – Steel Sheeting

Correct Screw Fixing of Steel Roof Sheeting

Roof sheeting must have the correct number and size of screw fixing, appropriate to the application.

The roof sheeting shown here is “close-pitched trapezoidal”, with screw-fixing every fourth rib, but should be fixed at every second rib.

