

ADVISORY NOTICE

BUILDING

06/14

Advisory Notices are issued to assist in the interpretation of the Development Act 1993

May 2014

TECHNICAL:

Earth walls and use of Table 3.12.1.3b of Volume Two of the Building Code of Australia

This Advisory Notice provides information about the determination of R-values for earth walls using Table 3.12.1.3b in Volume Two of the Building Code of Australia (BCA) in the National Construction Code (NCC) series, as referenced by clause 3.12.1.4(a) dealing with External Walls.

Table 3.12.1.3b is used where parts of an external wall have a surface density of not less than 220kg/m², which is usually some form of masonry construction but includes earth walls. The table provides a number of options for each Climate Zone, depending on the amount of thermal mass.

For example in Climate Zone 5, there are two options [(a) and (b)]:

- The first option is for a lower amount of thermal mass and shading which then requires at least R 0.5 insulation added to the walls
- The second option is basically a full masonry house (internal and external walls) with high thermal mass and good shading.

For Climate Zones 4 and 6, there are three options [(a), (b) and (c)] only one of which requires R 0.5 added insulation.

At the end of 3.12.1.4 there is some "Explanatory Information" which provides further advice about walls having a density of 220kg/m² or more and why, by using one of these options for the relevant Climate Zone the walls are considered to be satisfactory and the R-value for the whole wall does not have to be determined.

Alternatively, under Table 3.12.1.3a the basic requirement for external walls is an R-value of 2.4 (Zones 4 and 5) or 2.8 (Zone 6) so if it can be shown that a wall achieves this R-value then it automatically complies.

Further information

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