

4.3.2 Floors

4.3.2.1 With the exception of zone 5 (see annex A), buildings with a floor area of less than 500 m², with a concrete slab-on-ground, shall have insulation installed around the vertical edge of its perimeter which shall

- a) have an *R*-value of not less than 1,0,
- b) resist water absorption in order to retain its thermal insulation properties, and
- c) be continuous from the adjacent finished ground level
 - 1) to a depth of not less than 300 mm, or
 - 2) for the full depth of the vertical edge of the concrete slab-on-ground.

4.3.2.2 Where an underfloor (in-screed, under floor heating, underlamine heating, undercarpet heating, undertile heating, cut-in under floor heating or waterbased under floor heating) heating system is installed, the heater shall be insulated underneath the slab with insulation that has a minimum *R*-value of not less than 1,0.

4.3.2.3 With the exception of climatic zone 5, a suspended floor that is part of a building's envelope shall have insulation that shall retain its thermal properties under moist conditions and be installed

- a) for climatic zones 1 and 2, with a partially or completely unenclosed exterior perimeter, and shall achieve a total *R*-value of 1,5,
- b) for climatic zones 3, 4 and 6, with a partially or completely unenclosed exterior perimeter, and shall achieve a total *R*-value of 1,0, and
- c) with an in-slab in floor heating system, and shall be insulated around the vertical edge of its perimeter and underneath the slab with insulation having a minimum *R*-value of not less than 1,0.

NOTE Care should be taken to ensure that any required termite management system is not compromised by slab edge insulation. In particular the inspection distance should not be reduced or concealed behind the insulation.

4.3.3 External walls

4.3.3.1 Masonry walls such as, but not limited to, cavity, grouted cavity, diaphragm, collar-jointed and single leaf masonry, shall achieve the minimum *CR*-value given in table 3 for the different types of occupancies in the different climatic zones (see climatic zones in annex A).

NOTE For the *CR*-values of walls, contact the relevant manufacturer(s). Table 4 provides typical values for double brick masonry walls, with or without additional insulation.