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BCA 2008 – Roof and Ceiling Energy Concessions

The ABCB (Australian Building Codes Board) has posted on their website for comment, the proposed amendments to the BCA (Building Code of Australia Volumes 1 and 2), to be published 1 May 2008. This article draws attention to one issue – It is proposed that the BCA extend the concessions for roof and ceiling insulation to include the following:

- (b) *The Total R-Value specified in Table J1.3 is reduced –*
- (ii) *In climate zone 1, 2 and 3, for a Class 5 to 8, 9a and 9b building with-*
 - (A) *a roof upper surface solar absorptance value not more than 0.55, by R0.5; or*
 - (B) *a roof upper surface solar absorptance value of not more than 0.35, by R1.0 and*

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Reference: BCA Vol 1 Clause J1.3.

This means that, for non-residential buildings, a concession on the level of insulation in the roof/ceiling space may be made for light coloured roofs. Typical values of the Solar Absorptance and the level of concession are given below.

Colour	Solar Absorptance	Concession R m ² .K/W
Slate (Dark grey)	0.90	Nil
Red, Green	0.75	Nil
Yellow, Buff	0.60	Nil
Zinc aluminium – dull	0.55	R 0.5
Galvanised steel – dull	0.55	R 0.5
Light grey	0.45	R 0.5
Off white	0.35	R 1.0
Light cream	0.30	R 1.0

The selection of zincalume roofing, light coloured tiles and the like could permit some significant savings in the level of insulation to be selected.

Whilst this concession is important for roof, ceiling and insulation manufacturers, it also has implications for the manufacturers of other building envelope components, such as brickwork, blockwork, cladding and glazing. The establishment of insulation concessions based on roof solar absorptance, and the subsequent extension of these to non-residential buildings, sets a reduced benchmark for future deemed-to-satisfy concessions of these components.



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