

Energy Efficiency Housing Provision

NCC2022 PGH Bricks Product Solutions

How to comply with Section 13.2.3





The National Construction Code 2022 Housing Provisions Standard, Energy Efficiency has amendments. This document highlights the key changes and how you can achieve 7 stars using bricks.

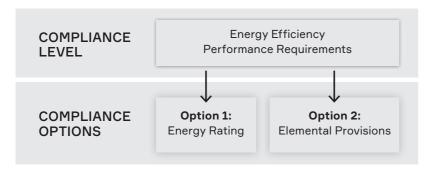
The NCC 2022 recognises that the colour of the external walls can contribute to thermal gain or loss of a house, and therefore impact the energy efficiency of that house, depending on which climate zone it is in.

For warmer climate zones, the NCC recognises that a light colour external wall offers a lower thermal gain than a dark coloured wall and therefore gives a higher star rating.

For colder climate zones, the NCC recognises that a dark colour external wall offers a higher thermal gain than a light coloured wall and therefore gives a higher star rating.

NCC2022 Energy Efficiency References

NCC2022 Vol. 2 [(Deemed to satisfy (DTS) H6D2 (1) (a) & (b)] recognises two compliance options to meet energy efficiency requirements via Energy rating and Elemental provisions.



Please refer to the NCC for the complete requirements concerning Energy Efficiency.

Compliance Interpretation

Compliance Option 1: Energy Rating

DTS H6D2 (1) (a) recognises a software-based approach that uses computer modelling to determine the thermal performance of each building individually.

This compliance pathway utilises Nationwide House Energy Rating Scheme (NatHERS) software which takes into consideration factors such as building fabrics, shading or orientation to calculate a star rating, representing the energy efficiency of the building. This offers more flexibility when selecting the brick colour of your choice; even if it's a light colour in CZ 6-8, by improving the building fabrics, shading or orientation you can still achieve the required star rating.

The advantage

Offers more flexibility and allows the selection of any colour wall regardless of climate zone.

Compliance Option 2: Elemental Provisions

DTS H6D2 (1) (b) follows the ABCB Housing Provisions which outline specific requirements for various building elements. PGH has a range of bricks with various solar absorptance rates to satisfy the elemental provisions and energy rating.

The advantage

Although design flexibility is limited, the Elemental provisions offer straight forward solutions to meet energy efficiency.

Summary of compliance solutions

Climate Zone	Solar Absorptance value	Brick colour	Deemed-to-Satisfy (DTS) Solution (ABCB Housing Provisions NCC2022)
1, 3 & 8	Not Specified for Bricks	All colours	Energy Rating
2, 4 & 5	≤0.7	Light and Medium colours	Energy Rating or Elemental Provisions
2, 4 & 5	>0.7	Dark colours	Energy Rating
6 & 7	≤0.85	Light, Medium and Dark colours	Energy Rating or Elemental Provisions
6 & 7	>0.85	Very Dark colours	Energy Rating

Additional key changes for bricks



Bricks are now recognised as a non-combustible material.

NCC2022 Vol.1 clause – C2D10(5) acknowledges masonry materials are deemed as non-combustible materials by the NCC.



PGH Bricks can be used wherever a non-combustible building element is required without a need for test reports or certificates.



Bricks meet the DTS Solution for Weatherproofing Provisions.

AS3700 can be used as a deemed-to-satisfy (DTS) pathway for weatherproofing compliance under NCC2022. This now applies to all building classes covered by NCC Volumes One and Two.

The advantage

This simplifies the design process by offering clearly defined and accepted solutions.

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Benefits of Bricks



Solid Investment

Building with bricks equals virtually no ongoing maintenance costs, as well as energy bill savings. When it's time to sell, brick rates well because it's trusted over newer cladding materials that haven't stood the test of time.



Energy Efficient

Brick insulates in a way most materials do not. By following good design principles and combining bricks with insulation, your home may keep warmer in winter and cooler in summer, so you'll love coming home.



Creative Colour & Choice

With our diverse range of sizes, shapes and textures, and over 180 colours, we have a brick to meet your needs. With smart design, blending of brick types and diverse bricklaying techniques, the options with bricks are truly endless.



Strong & Safe

Bricks won't twist or warp, rot or decay, erode or dent. They are resistant to the extremes of the Australian climate and being non-combustible, they don't assist the spread of fire.



Low Maintenance

Bricks require virtually no upkeep or repairs, avoiding ongoing costs. Remember, render will need to be repainted over time, an important fact to consider when looking at the 'whole-of-life' cost of your home.



Sound Reduction

The density of brick makes for a quiet home, with dramatically reduced external sound, such as aircraft, road traffic and noisy neighbours. Brick can also reduce noise transfer within the home when used on internal walls

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