

# WOOD PLASTIC COMPOSITE DECKING BOARDS AND NON-CONFORMING BUILDING PRODUCTS

EFFECTIVE MAY 2023 (UPDATED TO ALIGN TO NCC 2022)

A wood plastic composite (**WPC**) is a composite manufactured from predominantly (typically synthetic) thermoplastic resins and wood flour filler.

Construction documentation for WPC decking boards should include important information for the inclusion or use of the **WPC** decking boards, such as:

- the National Construction Code (**NCC**) Performance Requirements
- the need to support the use of WPC decking boards through the performance solution requirements of NCC 2022, Part A2G2
- the preparation of a performance-based design brief and formulation of a performance solution.

A performance-based design brief and formulation of a performance solution is required for WPC decking boards due to no acceptable construction manual or applicable Australian Standards being referenced in the NCC Deemed-to-Satisfy (**DtS**) provisions that consider WPC building products.

However, if the building product has a current CodeMark Certificate of Conformity, this process of a performance-based design brief and performance solution has already been carried out, as described by the Australian Building Codes Board (**ABCB**) article "[NCC Provision A2.2\(4\) and CodeMark Certificates](#)".

WPC decking boards are required to comply with the following:

- NCC structural stability and resistance Performance Requirements in HIP1
- Required information provisions under Part 6AA of the *Queensland Building and Construction Commission Act 1991* (**QBCC Act**).

An NCC performance solution is required for WPC decking boards to ensure their association with a building can satisfy the *Building Act 1975* (Qld) and the QBCC Act.

When **designing** buildings or structures using WPC decking boards, it is important to consider and provide:

- the determination of structural actions by a Registered Professional Engineer Queensland (**RPEQ**) in accordance with the AS/NZS 1170 series to provide the requirements such as floor loads, site windspeed assessment or earthquake requirements
- plans including site, floor and elevation to show deck area uses
- location information, if applicable, such as any requirements for:
  - slip resistance rating

- termite resistance
- designated bushfire-prone area, bushfire attack level (BAL) rating
- any fire hazard properties.

When **supplying** WPC decking boards, it is important to provide installers information for:

- properties and limitations of use
- installation and maintenance instructions (possibly via web link or QR code)
- the need for a performance solution to be formulated to satisfy the NCC Performance Requirements.

You should also have available to provide to persons in the chain of responsibility and the building certifier the supporting test reports and documents for the **NCC** evidence of suitability requirements, including, for example:

- AS/NZS 1170 series calculations for structural stability and resistance performance
- AS 1530.8 testing for bushfire performance
- AS 4586 slip resistance test performance
- AS 1530 series for fire test performance
- testing to any relevant overseas standards proposed to be used in supporting a performance solution.

If you are a person in the chain of responsibility involved with the ordering, supply, installation or design of decks using WPC decking boards, be sure to check that the product meets all the regulated criteria before supply, installation or design, including any NCC performance solutions.

Unless designed and manufactured to meet relevant NCC Performance Requirements and installed correctly, non-compliance of WPC decking boards may allow unsafe conditions, such as trip or fall hazards, to develop.

Under Queensland's non-conforming building products legislation, persons in the chain of responsibility (including, but not limited to, manufacturers, suppliers, installers, architects and engineers) must ensure the building products they manufacture, supply, install, or design are compliant, or otherwise risk incurring significant penalties.

Section 74AE of the QBCC Act provides for who is a person in the chain of responsibility for a building product.

## Definitions

**Required information<sup>1</sup>** - for a building product, means information about the product that—

- (a) for each intended use of the product, states or otherwise communicates the following—
  - (i) the suitability of the product for the intended use and, if the product is suitable for the intended use only in particular circumstances or subject to particular conditions, the particular circumstances or conditions;
  - (ii) instructions about how the product must be associated with a building to ensure it is not a non-conforming building product for the intended use;
  - (iii) instructions about how the product must be used to ensure it is not a non-conforming building product for the intended use; and
- (b) complies with the requirements for the information, if any, prescribed by regulation for this definition.

## Useful links

[ABC News Article - 26 November 2021 - NCC Provision A2.2\(4\) and CodeMark Certificates \(2021-11-26\), including steps to be followed when relying on a CodeMark Certificate of Conformity.](#)

[ABC Handbook – Performance Solution Process.](#)

## Disclaimer

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If you have any questions as to how the NCBP laws apply to you, you should obtain appropriate independent professional advice regarding how to discharge your duties under the QBCC Act and achieve compliance with relevant regulatory provisions for building products. This is especially important if you (or your company) intend to later rely upon that advice to demonstrate satisfaction of your duties under Part 6AA of the QBCC Act or other legislative obligations.

<sup>1</sup> See section 74AG of the QBCC Act.