

The Product Technical Statement is a form of documentary evidence stating that the properties and performance of a building material, product or form of construction fulfill specific requirements from the National Construction Code (NCC) 2019. This Product Technical Statements describes the application and intended use of the construction material, how the building material complies with NCC Volume 1 and 2 and specifies any limitations of the building material in question.

Material, product or form of construction *Clay Brick unit*

Issued by: *Think Brick Australia (TBA) representing the clay brick and paver manufacturers of Australia. 20/08/2019*

Date of issue: *Any*

PRODUCT DESCRIPTION

Colour: *Clay, Shale and any related additives.*

Material / Composition: *Any*

Size: *See manufacturer's documents for more details.*

Density: *Non-Combustible*

Combustibility: *See manufacturers for more details.*

Other Descriptions (optional): *See manufacturers for more details.*

Unit specification comply in accordance with Australian Standards (AS) 4455.1 - "Masonry Units, Pavers, Flags and Segmental Retaining Walls - Part 1: Masonry Units"

Unit to comply as at least a DW0 category unit in accordance to AS 4455.1

Units are tested to methods listed in AS 4456 series - "Masonry Units, Segmental Pavers and Flags – Methods of Test".

APPLICATION AND INTENDED

USE Applicable Building Class: *Building Classes 1-10.*

Suitable Environment: *Exposure (EXP) / General Purpose (GP) / Protected (P)*

Load Bearing: *Load bearing or non-loadbearing.*

Building Element: *Any*

LIMITATIONS OF USE:

Unit to be used for structural or decorative purposes or any other specified use. Refer to manufacturer's guidance for additional limitations.

CONDITIONS OF USE

For structural units, design and construction to comply with the NCC 2019.

WORK HEALTH AND SAFETY CONCERN

Management of silica dust from clay brick and paver cutting to be in accordance with TBA's Management of Silica Dust On Site Safety Factsheet. Additional guidance for constructing with block units can be found in TBA's Health and Safety Factsheets.

MAINTENANCE INSTRUCTIONS

Refer to engineering specifications and manufacturer instructions. Guidance is also available through Think Brick Australia's Technical Manuals, Factsheets and Guides.

COMPLIANCE WITH THE NATIONAL CONSTRUCTION CODE (A statement of the Performance Requirements and/or Deemed-to-Satisfy Provisions within NCC 2019 which the Product Technical Statement asserts compliance with.)

The Product Technical Statement asserts the compliance of clay masonry units as a construction material in accordance with NCC 2019, AS 4455.1 and tested to AS 4456.

For clay masonry building design, compliance can be achieved by designing and constructing to AS 3700 (all building classes), AS 4773.1 and AS 4773.2 for small buildings (Class 1 and 10 buildings only) as Acceptable Construction Manuals (ACM). Where applicable AS 4678 may be used to govern design of earth-retaining structures constructed from clay masonry units. Typical design requirements appropriate for the material can be found as Acceptable Construction Practices (ACP) in relevant clauses under NCC 2019. Design guidance for masonry Building 1 and 10 structures are provided under NCC 2019 Volume Two – Part 3.3. Alternative ACP's are indicated in NCC 2019 – Part A2.

Building Design Requirements

Fire Safety:

For Building Class 1 and 10: Meet compliancy requirement of NCC Volume 2 - Section 2.3 using Section 3.7 as an ACP.

Alternatively, use Section 6 of AS 3700 "Masonry Structures" and/or Section 5 of AS 4773 "Masonry in Small Buildings" as ACMs.

For Building Class 2-9: Meet compliancy requirement of NCC Volume 1 - Section C using Section 6 of AS 3700 as an ACM.

Structural Reliability:

For Building Class 1 and 10: Meet compliancy requirement of the NCC Volume 2 - Section 2.1 using Section 3.3 as an ACP.

Alternatively, use AS 3700 and/or AS 4773 as ACMs.

For Building Class 2-9: Meet compliancy requirement of NCC Volume 1 - Section B using AS 3700 as an ACM.

Acoustic Performance:

For Building Class 1 and 10: Meet compliancy requirement of NCC Volume 2 Section 2.4.6 using section 3.8.6 as an ACP.

For Building Class 2-9: Typical construction requirements are covered as an ACP in NCC Volume 1 Section F5.2.

Energy Efficiency:

For Building Class 1 and 10: Meet compliancy requirement of NCC Volume 2 Section 2.6 using Section 3.12 as an ACP.

For Building Class 2-9: Typical energy efficiency requirements are covered as an ACP in NCC Volume 1 Section J.

Condensation Management:

For Building Class 1 and 10: Meet compliancy requirement of NCC Volume 2 Section P2.4.7 using Section 5 of AS 3700 as an ACM.

For Building Class 2-9: Meet compliancy requirement of NCC Volume 1 Section F6 using Section 5 of AS 3700 as an ACM.

Weatherproofing:

For Building Class 1 and 10: Meet compliancy requirements of NCC Volume 2 Section 2.2 using Section 3.3.4 as an ACP.

Alternatively, use Section 4 of AS 3700 and/or Section AS 4773 as ACMs.

For Building Class 2-9: Meet compliancy requirement of NCC Volume 1 - Section F1 using Section 4 of AS 3700 as an ACM.

Note: AS 3700, AS 4773 and AS 4678 "Earth Retaining Structures" are primary referenced standards under the NCC 2019.

Following these standards is deemed to comply within NCC 2019 as an ACP.

SUPPORT

Additional Documents:

TBA manual Series are industry recognised and may be used with engineering judgement as performance solutions. TBA manuals are not recognised as an ACP within the NCC 2019.

Please contact Think Brick Australia for any enquiries relating to this Product Technical Statement and its application.

DISCLAIMER: The information provided within this product Technical Statement is intended to encompass conventional Australian masonry units, as evidence of their compliance with the NCC 2019. The manufacturers of masonry units must always be consulted to check that this Product Technical Statement reflects the unit that is intended on being used in the project. Design and or construction information is provided only to assist the use of the product in regards to relevant regulation, but each unit is not defaulted to be in compliance with certain design loads.