

A multi-story brick building with a glass roof and numerous windows. The building is constructed from red bricks and features a grid of windows with dark frames. The roof is flat and has a glass railing. The building is set against a clear blue sky.

Building Products Information Requirements (BPIR) - 70 Series Midland Clay Bricks

Declaration

NZ BRICK & STONE LIMITED (Trading as, Midland Brick NZ.) has provided this declaration to satisfy the provisions of Schedule 1(d) of the Building (Building Product Information Requirements) Regulations 2022. This is a generic statement to cover all Midland 70 series Clay Bricks

Description

The Midland range of 70 series kiln fired clay bricks are manufactured near Perth in Western Australia in accordance with manufacturing standards AS/NZS 4455, and are suitable for use as a masonry unit in accordance with the acceptable solution E2/AS1 Masonry. Midland 70 Series Clay Bricks are extruded, kiln fired, and are available in a range of face sizes. Midland 70 Series Clay Bricks are manufactured in a variety of colours and have a variety of face textures from smooth to wire-cut and multitextured.

Scope of Use

Midland 70 series Clay Bricks are manufactured and designed to be used as a masonry veneer in accordance with NZS 3604 or E2/AS1, The New Zealand building code provides an Acceptable solution E2/AS1 Masonry, which provides the design requirements for masonry veneers on single storey residential buildings.

E2/AS1 sets the limitations for Brick Veneer heights in Section 9.2.3 and Figure 73B. It advises that brick veneers with timber framing shall have a maximum height of veneer above finished ground level of 7m, a maximum height of 4m from the foundation and a maximum height of 5.5m to the apex of a gabled area.

If the veneer is supported by a masonry structure, NZS4229:2001 permits a veneer height of 6.0 for the wall and up to 10m in a gable area. Two Storey Brick Veneers – Specific Design TB1 The Clay Brick and Paver Manufacturers Association have developed a combined 2 storey system for clay brick veneer- Design Note TB 1. Designers and Bricklayers should familiarize themselves with this document.

The maximum heights specified in TB1 are 7.5m as a straight vertical wall. It does not require any shelf angles or slip joints, but studs must be at 400mm centers. The veneer on the gable ends can be 10.0m high; this also applies to a pier that is 1.0m or less and does not carry a lintel bar. A shelf angle can carry a maximum height of veneer of 4.0m. Refer to TB1 for the full specification.

Commercial Applications: There are many other ways masonry veneers used in commercial application. This can be done but they either become 'Alternative Solutions' to E2/AS1 Masonry which must be first approved and accepted by the BCA or 'Specific Design' which also must be approved and accepted by the BCA. For any brick veneer design that is outside the scope of NZS 3604 we recommend that a specific design is obtained by a suitably qualified structural engineer to meet the requirements of the NZBC.

Conditions of use

Upon completion of design process, it is important that the masonry veneer is installed according to the design specifications.

The masonry veneer must be installed and/or inspected by a Licensed Building Practitioner (LBP) in the Bricklaying and Blocklaying Licensing Class. The masonry veneer must be installed in accordance with the guidelines and requirements for masonry veneer exterior cladding set out in SNZ HB 4236:2002. (Masonry Veneer Handbook) and in accordance with the Master Brick & Blocklayers "Brick Veneer Best Practice Guide"

Maintenance: Kiln fired clay brickwork has a long history as one of the most durable and versatile building materials, and subsequently, requires virtually no maintenance. However, as with any materials, brickwork can be subject to natural weathering such as rain, sun, wind, and wind-borne sea spray. Midland Brick NZ recommends that the brickwork should be given a light hose down with low pressure water at least once a year. This could prevent the build-up of any airborne pollutants that could harm the brickwork. In order to maintain a functioning brick veneer cavity, it is important to ensure that all weep holes and vent holes are kept clean and free of debris and spiders. For specific instructions for cleaning brickwork, and general maintenance, you can visit the Clay Brick and Pavers Manufacture Associations website at www.bricksnz.co.nz or via the Midland brick website www.midlandbrick.co.nz

Relevant building code clauses

B1 Structure - B1.3.1, B1.3.2, B1.3.3 (f, h, m), B1.3.4

B2 Durability - B2.3.1 (a), B2.3.2 (a, b)

C3 Fire affecting areas beyond the fire source - C3.5, C3.6, C3.7

E2 External moisture - E2.3.2, E2.3.5, E2.3.7

F2 Hazardous building materials - F2.3.1

Contributions to compliance

Midland Brick NZ supply clay brick product that is fit for purpose and meets the requirements of the NZBC for durability. Provided the brick veneer is installed in accordance with accepted trade practice and in accordance with the requirements of the NZBC, Midland Brick NZ guarantees that the clay brick will satisfy the 50-year durability requirements for the E2 durability clause.

Midland Brick NZ recommends that clay bricks are installed by a competent trade's person and in accordance with the guidelines and requirements for masonry veneer exterior cladding set out in SNZ HB 4236:2002. (Masonry Veneer Handbook)

For any brick veneer design that is outside the scope of NZS 3604 we recommend that a specific design is obtained by a suitably qualified structural engineer to meet the requirements of the NZBC.

B1 Structural: Midland 70 Series Clay Bricks are manufactured in accordance with the requirements of AS/NZS4455 and are regularly tested for compliance in accordance with AS/NZS4456 and therefore meet the requirements for loads arising from self-weight, earthquake, wind, impact and creep and shrinkage.

B2 Durability: B2.3.1(a) (ii) and (iii) and B2.3.2: Clay Bricks have stood the test of time. Midland Brick NZ guarantees that the clay brick will satisfy the 50-year durability requirements for the E2 durability clause.

C3. Spread of Fire: Kiln fired Clay Bricks are non-combustible. BRANZ provides a Technical Opinion on fire resistance for Clay Brick Veneers on steel or timber framed walls.

E2 External Moisture: Performance E2.3.2. Midland 70 series Clay Bricks are manufactured and designed to be used as a masonry veneer in accordance with NZS 3604 or E2/AS1. Acceptable solution E2/AS1 Masonry provides the design requirements for masonry veneers on single storey residential buildings.

F2 Hazardous Building Material: F2.3.1: Midland 70 Series Clay Bricks are safe when handled. Care must be taken when cutting bricks, as dust generated may contain respirable silica.

Supporting Documentation

The following additional documentation supports the above statements:

Design Note TB1 (Design)	January 2018	https://www.midlandbrick.co.nz/
NZ Master Mason - Best Practice Guide	Version (July 2022)	https://www.bbfz.co.nz/building-with-brick/brick-veneer-best-practice-guide/
Design Note TB2 - Stack Bonded Brick Veneer (Design)	July 2019	https://www.midlandbrick.co.nz/
Brnz Appraisal No. 690 (2022) Two Storey Brick Veneer (Design)	2022	https://www.midlandbrick.co.nz/

For further information supporting 70 series Midland Clay Bricks claims refer to our website at www.midlandbrick.co.nz and/or www.bricksnz.co.nz.

Contact Details

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Responsible person

As the responsible person as set out in Regulation 3, I confirm that the information supplied in this declaration is based on information supplied to the company as well as the company's own processes and is therefore, to the best of my knowledge, correct.

I can also confirm that the Euro Range of 70 series Clay Bricks are not subject to a warning on ban under [s26 of the Building Act](#).

Signed for and on behalf of **NZ BRICK & STONE LIMITED**:

B Fifield

Bryan Fifield
General Manager
December 2023