

## VIBLOCK STACK BONDED BRICK CLADDING SYSTEM – SPECIFICATION VB-S1 SINGLE-STOREY STACK BONDED SPECIFICATION

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### PRELIMINARY

This document is a bricklaying specification used for the construction of single storey, stack-bonded brick veneers. It is an 'Alternative Solution' to E2/AS1 applicable only when Viblock concrete bricks, as mentioned in this document, are used in a stack bonded masonry brick veneer. This document is to be read in accordance with the pre-requisite specification VB-B1. Items not covered in this specification must comply with the general specification for Viblock concrete bricks, Specification VB-B1.

Should a requirement in this document conflict with VB-B1, this specification, Specification VB – S1, is to apply.

### DESIGNER

The 'Architectural Designer' is responsible for ensuring that the brick veneer, as detailed on the Building Consent Plans and Specification, complies with all aspects of this 'Specific Design'.

The designer must clearly mark on the plans submitted for Building Consent – '*Viblock Stack Bonded Brick Cladding System – Specification VB-S1*' – no substitution.

### DESIGN LIMITATIONS

The Viblock single storey stack bonded brick veneer shall be subject to the limitations outlined in Specification VB-B1, with the following exceptions:

- Bricks must be laid in a stack bond pattern.
- Where timber studs are used as the support structure, a maximum stud spacing of 400mm shall apply.

### Bricks

This specification is only applicable to the following brick types manufactured by Viblock:

**Table 1 – Viblock bricks applicable to this specification**

Bricks applicable to this specification				
Viblock Brick Product	Size (LxHxW)	No/m <sup>2</sup>	Weight (kg) Per brick	Weight (kg/m <sup>2</sup> )
Dunstan	220 x 136 x 70mm	33	3.6	125
Shotover	220 x 73 x 70mm	60	1.9	120

*Note: Table 1 includes a 4% allowance for wastage in the number of bricks per m<sup>2</sup>, for ordering purposes*

## BRICK VENEER CONSTRUCTION

### Supporting structure

#### *Timber Framing*

If the brick veneer is supported by timber framing, the framing must be constructed in accordance with NZS 3604 to a maximum stud spacing of 400mm crs.

#### *Concrete/Pre-cast Panels*

If the brick veneer is supported by concrete or pre-cast panels, these must be constructed in accordance with NZS 4229. Alternatively, a masonry or concrete support may be designed by a suitable qualified engineer.

### Bracing

Bracing requirements of walls may be calculated using the prescribed tables in NZS 3604 or by a suitably qualified engineer.

### Brick Cavity

The cavity shall comply with the requirements noted in Specification VB-B1.

### Brick Ties

Brick ties shall comply with the requirements noted in Specification VB-B1, with the exception of the spacing requirements outlined below:

#### *Brick tie spacing*

Brick ties are to be fixed horizontally to studs at a maximum spacing of 400mm, and vertically depending on the height of the brick as per Table 2 below.

Table 2 – Brick ties spacing

Placement of Brick ties in Mortar Courses		
Viblock Brick Product	Height of Brick	Studs at 400mm crs.
Dunstan Brick	136mm	Every 2 <sup>nd</sup> course
Shotover Brick	73mm	Every 3 <sup>rd</sup> course

### Joint Reinforcement

- Bed joint reinforcement shall be installed in bed joints spaced at 800mm crs  $\pm$  100mm (depending on the brick height) over the height of the veneer.
- Bed joint reinforcement to be MASONS 4.0mm Bricklock STR and CNR galvanised or stainless-steel joint reinforcement, as appropriate for the site exposure zone (refer NZS 3604).
- Bed joint reinforcement is to be placed in mortar joints that do not contain brick ties.

Due to the wide variety of designs, location of windows, panel widths, roof configurations etc., it is not practical to be more specific where consideration should be given to installing joint reinforcement. However, the following rules should be applied:

- Bed joint reinforcement to be installed within 350mm of the top and bottom of the panel.
- Bed joint reinforcement to be installed within 175mm of head and sill of window/door openings, extending minimum of 2 bricks into the adjacent brick panel.

### Shelf Angles & Lintels

All shelf angles/lintels used for single storey stack bonded wall veneers are to comply with the relevant sections in Specification VB-B1.

### TECHNICAL SUPPORT

Should you require any technical support on the Viblock stack-bonded Brick Veneer System, please contact Viblock on:

**T: (03) 343 0394**

**Email: sales@viblock.co.nz**

**Website: <https://www.viblock.co.nz/contact-us/>**

