

Brick Veneers

Specifications

The Blockshop NZ Limited concrete brick veneer meets the requirements of AS/NZS4455 as a masonry brick veneer and complies with and exceeds the 15 year durability requirements as stated in the New Zealand Building Code B2.

The New Zealand Building Code (NZBC) clause applicable to the construction of brick veneers is E2.E2/AS3 references construction according to the Cement and Concrete Association New Zealand's document CCANZ CP 01 as a means of compliance with the NZBC. Some interpretation of the details is needed as the document is written for concrete wall construction, however the details for the veneer do not change between the concrete wall and timber framed construction. When timber frame walls to NZS 3604 are used the veneer details and specifications still apply.

70 series Sizes	Measurements & Weight	Pallet Load
Standard Brick	230 x 90 x 70 mm (approx. 41.6 per m ²) 2.2kg brick weight	451
Standard Brick and a Half	230 x 115 x 70 mm (approx. 36 per m ²) 3.2kg brick weight	387
Standard Double Brick	300 x 150 x 70 mm (approx. 22 per m ²) 4.1kg brick weight	257
Compressive Strength	In excess of 10 MPa	
Compatibility		
The Blockshop NZ Limited concrete veneer bricks are made from standard concrete masonry materials and so are compatible with any typical NZ construction systems as specified in NZ 3604,		
Construction Information		
The product is designed to fit in with the requirements of NZS 3604, NZS 4210 and CCANZ CP 01 for the construction of brick veneer claddings.		
Maximum Height:	4.0 m measured as per description in NZS 3604 CL 1.1.2 (o)(iii).	
	5.5 m in a gable end as per the same clause.	
	5.5 m for a pier not exceeding 1.0 m in width and not supporting a steel lintel.	

Mortar:	Shall be as per NZS 4210 Cl 2.2 with minimum strength of 12.5 MPa. Pre-mixed bagged mortar is also acceptable provided it meets the same requirements.	
Brick Ties:	Screw-fixed galvanised ties to be used which comply with AS/NZS 2699: Part 1 with a minimum 50% bedding in wet mortar. Stainless steel wall ties to be used in sea spray zones.	
Placement of Brick Ties in Mortar Courses (34 per m²) as per NZS 4210		
Brick Height	Studs at 600 mm	Studs at 400 mm
90 mm	Fourth course	Fifth course
115 mm	Third course	Fourth course
150 mm	Second course	Second course

Workmanship

The construction of masonry works deemed to comply with this standard (NZS 4210: 2001 1.5) shall be carried out by competent, experienced tradesmen and/or a Licensed Building Practitioner. The tradesmen should be supervised by a LBP. The Blockshop NZ recommends that this product is installed by a LBP, qualified in brick and blocklaying in accordance with the Licensed Building Practitioners Board.

Finishes

Colours:

Charcoal, Cadrona, Natural, Shark Grey. NB Colour and texture may vary between brick types and batches. To ensure a uniform finish The Block Shop recommends that the product is laid from the same batch. Try to use the bricks from three pallets wherever this is feasible to reduce any possible visual colour changes.

Efflorescence:

We have taken all possible steps to prevent this from occurring in our products, however this is a natural occurrence in concrete products. Bricks are to be kept covered and dry during the construction process to reduce the chance of it occurring.

Sealing:

This will enhance the appearance, life and durability of the bricks but is not mandatory.

Completed Veneer:

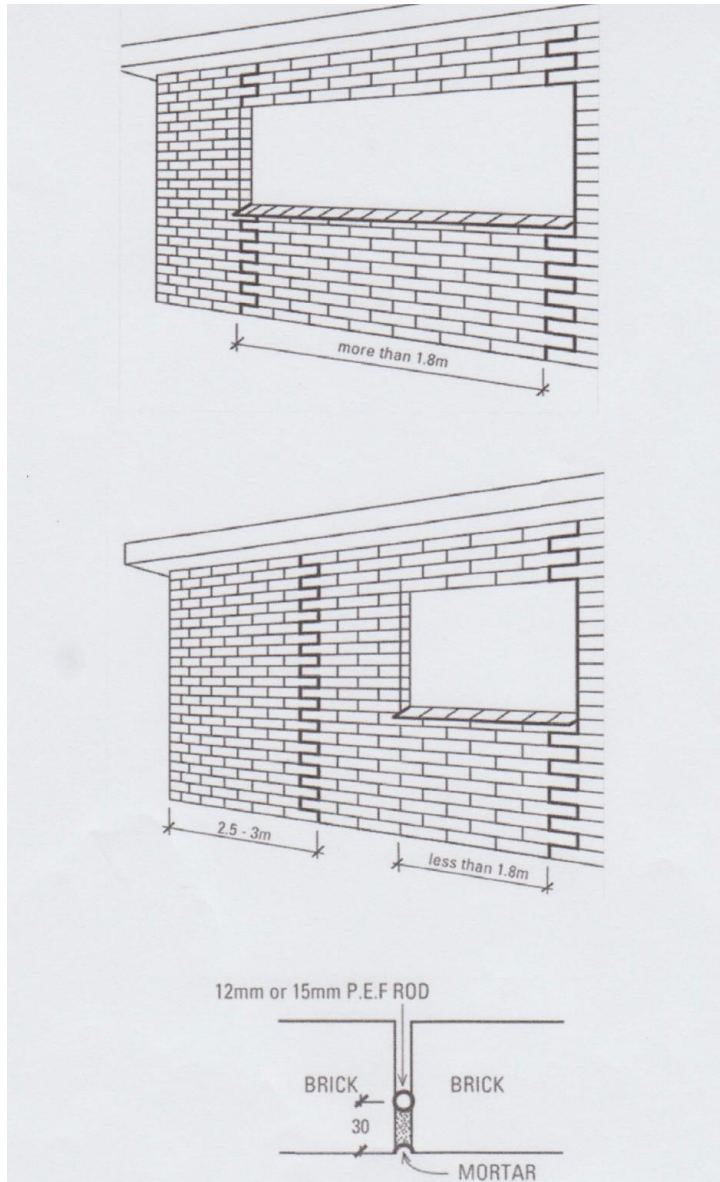
In common with masonry products, some chipping may occur during manufacture, delivery and handling on site. The Blockshop NZ Limited accepts no responsibility or liability for any substandard workmanship or incorrect installation once this product has been laid. Once the product has been laid it is deemed that the quality has been accepted by the customer. The Blockshop NZ accepts no responsibility or liability for any costs incurred by any party for the installation or taking down of this product.

Frogs:

The Blockshop NZ concrete brick has a frog (recess). This frog is to be laid face-down.

Control Joints:

Control joints are required in concrete masonry veneers to manage shrinkage cracking. The Block Shop will not accept responsibility for any random cracking in either mortar or brick that may result from either drying or ground settlement. We recommend control joints be no more than 5-6m apart for long walls with no windows. If there are no windows within 6 metres of a corner, then a control joint should be located within 3 metres of that corner. Control joints should also be placed at every window under one corner for openings of less than 1.8 metre and both corners for longer windows.



Construction Details:

- 1 Remove all mortar prior to initial set along the saw tooth line where control joints are required.
- 2 Place a 12mm or 15mm diameter PEF (Polythene foam) rod continuously into the joint 30 mm back from brick face to form a backing strip.
- 3 Leave the joint unmortared as long as possible to allow shrinkage to occur.
- 4 Use 20 mm of matching mortar to complete the joint.
- 5 With the correct number of control joints, cracking if visible along mortar/brick line will be minimised.

Technical Notes:

Concrete brick veneers can shrink up to 6 mm over 10 metres, resulting in vertical cracks occurring down the height of the wall. The installation of 10 mm control joints prevents this happening.

Refer to NZS4210. A territorial authority cannot issue a Code of Compliance Certificate on a concrete brick veneer when control joints are not installed. If they do, they take responsibility for it.

Cracking may occur and would be virtually impossible to rectify satisfactorily due to changes in the mortar colour and the fading of concrete bricks. The total veneer would have to be replaced in most cases.

Stack Bonded Bricks:

Input is required in the form of straight control joints and block in-joint reinforcing every second course, alternating with tie courses. Maximum panel lengths are limited. An advantage of this option is that the panels above and below openings can be offset to create architectural features.

Galvanised block in-joint reinforcing shall be used in the horizontal bed joints to introduce a horizontal tensile strength into the veneer to minimise vertical cracking. It is used in joints away from ties where possible. Joints in this reinforcing should lap a minimum of 50 mm. A stainless steel option should be used in sea spray zones.

Stack bonding is not permitted without an engineered design.