

Refer to product table below for applicable product codes covered by this document

Issue B - 10/2024

## **Product Type & Application**

PGH" Face Bricks are kiln-fired bricks made predominantly from clay and shale fired at high temperatures and are suitable for masonry veneer exterior cladding applications. Formerly known as Monier Bricks' through The Brickery', PGH Bricks are now available in New Zealand through CSR' Building Products.

#### Compliance with New Zealand Building Code

When correctly specified and installed, this product meets or contributes to compliance with the following performance requirements of the building code:

- B1 Structure B1.3.1, B1.3.2, B1.3.3(f, h, j) PGH Face Bricks have been tested in accordance with AS/NZS 4455.1 to verify compliance with the minimum material quality standards as specified in B1/AS1.
- B2 Durability B2.3.1(a) Bricks strength is demonstrated to meet the NZBC B2 – Durability requirements (NZS 4210 C2.1.4.5). Additionally, bricks have been tested in accordance to AS/NZS 4456.10 to determine exposure category and may be used depending on the exposure category requirement in Appendix 2.E of NZS 4210:2001.
- C3 Fire affecting areas beyond fire source C3.7(a) Brick materials are deemed to be non-combustible as stated in the definition of terms in C/AS1.
- C3 Fire affecting areas beyond fire source C3.3 Bricks can achieve an FRR of up to 60/60/60 which meets the requirement of C/AS1 5.1.1.2 and C/AS2 Table 2.4 for all Risk Groups except CA, WB and WS. See Limitations of Use for more details.
- **E2 External Moisture** E2.3.2, E2.3.3, E2.3.5, E2.3.6, E2.3.7 Face bricks meet the requirements of E2/AS2 9.2.2(1) when tested in accordance with AS/NZS 4456.8.
- F2 Hazardous building materials F2.3.1 Bricks are not classified as hazardous according to criteria of WorkSafe New Zealand GHS 7. However, the fine dust in/on the supplied product may include respirable crystalline silica. Cutting, breaking, drilling, sawing, grinding, and finishing may generate hazardous dust. Refer to the product SDS at pghbricks.co.nz for more information.

### **Basis of Compliance**

- Testing to AS/NZS 4455.1 and specific AS/NZS 4456 series standards across the following reports:
  - PGH NATA Lab Report No. 2024028 Hartlands
  - PGH NATA Lab Report No. 2023035 Gypsy Rose
  - PGH NATA Lab Report No. 2023078 Crevole
  - PGH NATA Lab Report No. 2024014 Alpine
  - PGH NATA Lab Report No. 2024013 Devon
  - PGH NATA Lab Report No. 2024012 Rockhampton
  - PGH NATA Lab Report No. 2024011 Moon Dust
  - PGH NATA Lab Report No. 2023037 Malt
  - PGH NATA Lab Report No. 2022062 Dover
- Professional Assessment, AS1530.4
  - BRANZ Assessment FC11917-001, 20 October 2020.
- Acceptable Solutions and Verification Methods for New Zealand Building Code Clause B1 Structure Amendment 21, 2 November 2023.
- Acceptable Solutions and Verification Methods for New Zealand Building Code Clause B2 Durability Amendment 12, 5 November 2020.
- C1-C6 Protection from Fire Acceptable Solution C/AS1
   Energy Efficiency, Acceptable Solution H1/AS1, Protection from fire for buildings with sleeping (residential) and outbuildings (risk group SH), Second edition, 2 November 2023.
- C/AS2 Acceptable Solution for Buildings other than Risk Group SH, For New Zealand Building Code Clauses C1-C6 Protection from Fire, Amendment 3, 2 November 2023.
- Verification Methods E2/VM1 and Acceptable Solutions E2/AS1, E2/AS2 and E2/AS3 For New Zealand Building Code Clause E2 External Moisture, Amendment 10, 5 November 2020.
- Acceptable Solutions and Verification Methods For New Zealand Building Code Clause F2 Hazardous Building Materials, Amendment 3, 1 January 2017.
- PGH Safety Data Sheet for PGH Clay Bricks and Pavers, 11 September 2024.







### **Specific Design or Installation Instructions**

- PGH Face Bricks are suitable for masonry veneer exterior cladding applications. Other applications would require specific engineering design.
- Design and installation of masonry veneer exterior cladding shall be in accordance with Section 11 of NZS 3604:2011, NZS 4210:2001, and/or Verification Methods E2/VM1 and Acceptable Solutions E2/AS1, E2/AS2 and E2/AS3 For New Zealand Building Code Clause E2 External Moisture, Amendment 10, 5 November 2020.
- For general guidance on bricklaying refer to the Master Brick and Blocklayers<sup>®</sup> publication 'Brick Veneer Best Practice Guide' September 2023 Edition.

#### **Limitations of Use**

- **IMPORTANT:** Do Not Modify This Product: Compliance with the evidence of suitability data referenced in this document is only achieved by the product or configuration listed in this PTS.
- Design and installation of the wall system should be in accordance with the New Zealand Building Code.
- These products are only intended for masonry veneer exterior cladding applications.
- PGH Face Bricks have not been assessed for use in flooring applications.
- This product is not subject to any warning or ban declared by MBIE under section 26 of the Building Act 2004.
- AS 1530.4 Assessment for FRR is 60/60/60 for walls up to two storeys high. Weep holes must meet the requirements of a Type A area in C/AS2 5.4.

## Conditions of Storage, Use & Maintenance

- Store in the original packaging in a cool, dry area, away from foodstuffs. Ensure packages are adequately labelled, and protected from physical damage.
- Bricks are not classified as hazardous according to criteria
  of WorkSafe New Zealand GHS 7. However, the fine dust
  in/on the supplied product may include respirable
  crystalline silica. Cutting, breaking, drilling, sawing,
  grinding, and finishing may generate hazardous dust. Refer
  to the product SDS at pghbricks.co.nz for more information.
- Brick cleaning after bricklaying is a specialist trade and should only be undertaken by a professional. The chemicals and high-water pressures used can easily damage the product, if not done correctly. Different brick textures and colours often have different cleaning considerations. Dry brushing bricks periodically when laying to remove residual mortar is an effective way to reduce the amount of effort required to clean bricks. Bricks should be cleaned within 2 to 14 days of laying.

Brick Cleaning Guides are available at Bricksnz.co.nz/manuals

Alternatively, please contact PGH on 0800 999 277.

PGH Bricks NZ, 14 The Furlong, Takanini, Auckland For further technical advice call 0800 806 313/ email orders@csr.co.nz

PGH Bricks NZ is a business division of CSR Building Products (NZ) Limited (NZBN 9429040750194)

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### **Applicable Product Codes**

COLOUR	BRICK WEIGHT [kg per m²]	WORK SIZE (LxWxH) [mm]	DIMENSIONAL CATEGORY <sup>1</sup>	UNCONFINED COMPRESSIVE STRENGTH² (f'uc) [MPa]	DURABILITY CLASS <sup>3</sup>	PRODUCT CODE
Hartlands	<150	230 x 70 x 76	DW1	>45	Exposure Grade	137757
Gypsy Rose	<150	230 x 70 x 76	DW1	>35	Exposure Grade	141728
Crevole	<120	230 x 70 x 76	DW1	>15	General Purpose	464612
Alpine	<110	230 x 70 x 76	DW1	>15	Exposure Grade	468281
Devon	<110	230 x 70 x 76	DW1	>15	Exposure Grade	468282
Rockhampton	<120	230 x 70 x 76	DW1	>15	Exposure Grade	473763
Moon Dust	<110	230 x 70 x 76	DW1	>15	Exposure Grade	480538
#Dover	<140	230 x 70 x 76	DW1	>25	Exposure Grade	141722#
#Malt	<140	230 x 70 x 76	DW1	>30	Exposure Grade	141726#

<sup>&</sup>lt;sup>1</sup>Tested in accordance with AS/NZS 4456 Method 3: Determining dimensions

#### **Additional Product Data**

COLOUR	Coefficient of Expansion⁴ [mm/m/15 years]	Initial Rate of Absorption <sup>5</sup> (IRA) [kg/m²min]	Cold Water Absorption <sup>6</sup> [%]	Luminous Reflectance Value <sup>7</sup> [%]	Solar Absorptance Value <sup>7</sup> [%]	Core Percentage <sup>8</sup> [%]
Hartlands	<1	<0.75	<10			≤30
Gypsy Rose	<1.4	<0.75	<10	20.3	64.6	≤30
Crevole	<1.6	0.5-1.5	<12	69.5	28.0	≤30
Alpine	<1	0.5-1.5	<10	61.0	34.5	≤30
Devon	<1	0.5-1.5	<10	48.8	41.1	≤30
Rockhampton	<1	0.5-1.5	<10	33.3	56.2	≤30
Moon Dust	<1	0.5-1.5	<10	40.8	50.0	≤30
#Dover	<2.4	0.5-1.5	<10			≤30
#Malt	<2	0.5-1.5	<10			≤30

<sup>&</sup>lt;sup>4</sup>Tested in accordance with AS/NZS 4456 Method 11: Determining coefficients of expansion

#### For all:

Potential for Lime Pitting	When assessed to AS/NZS 4456 Method 13	Nil to Slight
Potential for Efflorescence	When assessed to AS/NZS 4456 Method 6	Nil to Slight

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<sup>&</sup>lt;sup>2</sup>Tested in accordance with AS/NZS 4456 Method 4: Determining compressive strength of masonry units

<sup>&</sup>lt;sup>3</sup> Tested in accordance with AS/NZS 4456 Method 10: Determining resistance to salt attack

<sup>#</sup> Product discontinued (October 2024).

<sup>\*</sup>Tested in accordance with AS/NZS 4456 Method 17: Determining initial rate of absorption (suction)

<sup>&</sup>lt;sup>6</sup> Tested in accordance with AS/NZS 4456 Method 14: Determining water absorption properties

Tested in accordance with ASTM E903-20: Standard Test Method for Solar Absorptance, Reflectance, and Transmittance of Materials Using Integrating Spheres

Tested in accordance with AS/NZS 4456 Method 7: Determining core percentage and material thickness

<sup>#</sup> Product discontinued (October 2024).





### Membership



Clay Bricks and Pavers Manufacturer's Association New Zealand

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