



BRANZ Appraised
Appraisal No. 1038 [2018]

PX3-0 XPRESSCLAD VENTILATED RAINSCREEN

Appraisal No. 1038 [2018]



BRANZ Appraisals

Technical Assessments of
products for building and
construction.

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Product

- 1.1 The PX3-0 XpressClad Ventilated Rainscreen is an express jointed, cavity-based cladding system that incorporates an aluminium rail support system to achieve a 20 mm cavity depth. The cavity is drained and vented at every horizontal junction / joint. It is designed to be used as an external cladding system for residential and light commercial type buildings.
- 1.2 The PX3-0 XpressClad Ventilated Rainscreen features fibre cement panels referred to as Swisspearl and Pacbld Refined, or wood fibre laminate panels referred to as Parklex. Panels are fastened to aluminium rail supports with either an adhesive fixing system, or a combination of adhesive fixing and mechanical fasteners, dependent on the installation height above ground level.
- 1.3 The cavity system incorporates a primary and secondary means of weather resistance [first and second line of defence] against water penetration by separating the cladding from the external wall framing with a 20 mm cavity. The cavity allows for any occasional ingress of water that may get past the external skin to drain to the exterior of the building, and any remaining moisture to dry by evaporation.

Scope

- 2.1 The PX3-0 XpressClad Ventilated Rainscreen has been appraised for use as an external wall cladding for buildings within the following scope:
 - the scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1; and,
 - constructed with timber framing complying with the NZBC; and,
 - with a risk score of 0-20, calculated in accordance with NZBC Acceptable Solution E2/AS1, Table 2; and,
 - situated in NZS 3604 Wind Zones up to, and including Extra High; and,
 - with a building height of ≤ 10 m and at a distance of ≥ 1.0 m to the relevant boundary.
- 2.2 The PX3-0 XpressClad Ventilated Rainscreen has also been appraised for use as an external wall cladding for buildings within the following scope:
 - the scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1 with regards to building height and floor plan area; and,
 - constructed with timber framing or timber infill framing complying with the NZBC; and,
 - situated in specific design wind pressures up to a maximum design differential ultimate limit state [ULS] of 2.5 kPa.
- 2.3 The PX3-0 XpressClad Ventilated Rainscreen must only be installed on flat, vertical surfaces.
- 2.4 The PX3-0 XpressClad Ventilated Rainscreen is appraised for use with aluminium window and door joinery that is installed with vertical jambs and horizontal heads and sills. [The appraisal of The PX3-0 XpressClad Ventilated Rainscreen relies on the joinery meeting the requirements of NZS 4211 for the relevant Wind Zone.]

- 2.5 Building designers are responsible for the incorporation of the PX3-0 XpressClad Ventilated Rainscreen into their design in accordance with the instructions of Pacific Build Supply Limited, using the details given in the Technical Literature, and for designing all details not covered by this Appraisal.

Building Regulations

New Zealand Building Code [NZBC]

- 3.1 **In the opinion of BRANZ, The PX3-0 XpressClad Ventilated Rainscreen if designed, used, installed and maintained in accordance with the statements and conditions of this Appraisal, will meet the following provisions of the NZBC:**

Clause B1 STRUCTURE: Performance B1.3.1, B1.3.2 and B1.3.4. The PX3-0 XpressClad Ventilated Rainscreen meets the requirements for loads arising from self-weight, earthquake, wind and impact [i.e. B1.3.3 (a), (f), (h) and (j)]. See Paragraphs 9.1 - 9.3.

Clause B2 DURABILITY: Performance B2.3.1 (b), 15 years and B2.3.2. The PX3-0 XpressClad Ventilated Rainscreen meets these requirements. See Paragraphs 10.1-10.3.

Clause E2 EXTERNAL MOISTURE: Performance E2.3.2. The PX3-0 XpressClad Ventilated Rainscreen meets this requirement. See Paragraphs 14.1 - 14.5.

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1. The PX3-0 XpressClad Ventilated Rainscreen meets this requirement and will not present a health hazard to people.

Technical Specification

- 4.1 The PX3-0 XpressClad Ventilated Rainscreen includes two prefinished panel options. These include:
- **Swisspearl** - a high-density (~1,900 kg/m³) pigmented fibre cement panel with a factory-applied pigmented acrylic top finish available in various colours and surface finishes. Swisspearl panels are 1250 mm wide, 2510 or 3050 mm long and 8 mm thick.

- **Parkex** - a wood fibre laminate panel available in a range of wood veneer finishes. Parkex has a wood fibre core impregnated with thermosetting resin which forms a 'high-pressure laminate' (HPL) panel. Parkex is available in 2440 x 1220 x 8 mm sheets.

- 4.2 The PX3-0 XpressClad Ventilated Rainscreen also includes an uncoated panel option:

- **Pacblid Refined** - a medium-density (~1,250 kg/m³), pre-sanded, uncoated fibre cement panel, suitable for coating with an acrylic paint system. Pacblid Refined panels are 1190 mm wide, 2400 or 3000 mm long and 9 mm thick.

[Substitution of alternative fibre cement panel products as a replacement for Pacblid Refined is not permitted by Pacific Build Supply Limited and is outside the scope of this Appraisal. The performance of the PX3-0 XpressClad Ventilated Rainscreen relies on the specifications established for Pacblid Refined and performance of substitute products is not considered by this Appraisal.]

Accessories

- 4.3 Accessories used with the PX3-0 XpressClad Ventilated Rainscreen which are supplied by Pacific Build Supply Limited are:

- **Rigid wall underlay** - medium density fibre cement sheet, complying with NZBC Acceptable Solution E2/AS1, Table 23, which must be supplied by Pacific Build Supply Limited. [Substitution of alternative rigid wall underlay products as a replacement for the Pacific Build Supply-sourced rigid wall underlay is not permitted by Pacific Build Supply Limited and is outside the scope of this Appraisal. Performance of substitute products within the PX3-0 XpressClad Ventilated Rainscreen has not been considered for this Appraisal.]

- **XpressClad Support Rails** - A range of various extruded aluminium profile sections manufactured in 6000 series aluminium. Profiles include horizontal and vertical runners, internal and external corner profiles and soaker flashings for horizontal profile joints. All profiles are factory anodized or mill finished.



- **SikaTack® Panel-50 Adhesive System** –The SikaTack® Panel-50 Adhesive System is used for fixing of Swisspearl, Parklex and Pacbld Refined Panels to XpressClad support rails and includes the following components for use in accordance with the detail provided in the technical literature:
 - Sika® Aktivator-205;
 - Sika® Primer-210;
 - SikaTack® Panel Fixing Tape;
 - SikaTack® Panel-50 Adhesive.

[Substitution of alternative adhesive products as a replacement for SikaTack® Panel-50 Adhesive System is not permitted by Pacific Build Supply Limited and is outside the scope of this Appraisal. Performance of substitute products within the PX3-0 XpressClad Ventilated Rainscreen has not considered for this Appraisal.]

- **Fasteners:**

- Support Rail Fasteners - 10g x 40 mm minimum T17 pan head stainless steel screws to achieve a minimum fastening embedment depth into framing timber of 32 mm.
- Panel Fasteners / Life Safety Mechanical Backup Anchors [LSA] - Aluminium pop rivets supplied with an 8 mm diameter, clearance-holed aluminium ferrule to accommodate panel and substrate movement. Panel fasteners can be powdercoated on request.
- **Flexible sill and jamb tapes** – Pro Clima Tescon Extoseal Sill Tape - 150 mm and 200 mm x 20 m. A flexible flashing tape for use around framed joinery openings as a secondary weather resistant barrier.
- **Flexible flashing tape** – Pro Clima Tescon Extora Sealing Tape - 60 mm and 100 mm x 30 m. A flexible sealing tape for sealing of rigid wall underlay panel joints and overflashing of horizontal support rails.
- **Self-Adhesive Underlay** - Pacbld PSM [Pro Clima Solitex Extasana Adhero®] Self-Adhesive underlay. A self-adhesive underlay intended to be placed over the entire exterior surface of the rigid wall underlay, as an alternative to flexible sealing tape placed over sheet joints.

4.4 Accessories used with The PX3-0 XpressClad Ventilated Rainscreen which are supplied by the building contractor are:

- **Flexible wall underlay** – synthetic wall underlay complying with NZBC Acceptable Solution E2/AS1 Table 23, or breather-type membranes covered by a valid BRANZ Appraisal or CodeMark for use as wall underlay.
- **Flexible wall underlay support** – 19 mm wide polypropylene tape to support flexible underlay between studs.
- **Window head flashings** – Aluminium head flashings to suit the selected window joinery suite.

Pacbld Refined Paint System Specification

- 4.5 Paint systems are not supplied by Pacific Build Supply Limited and have not been assessed, therefore are outside the scope of this Appraisal.
- 4.6 All cut edges of Pacbld Refined panels are to be sealed on site with a primer suitable for the selected proprietary acrylic paint system.
- 4.7 All exposed faces, including top edges at sills and bottom edges of Pacbld Refined panels must be finished with an acrylic exterior paint system complying with AS 3730.



Handling and Storage

- 5.1 Handling and storage of all materials supplied by Pacific Build Supply Ltd or the contractor, whether on site or off site, is under the control of the building contractor. The PX3-0 XpressClad Ventilated Rainscreen panels are packed on pallets and must be kept dry during transport. The panels must be horizontally stacked on a flat surface and must always be sufficiently supported so that they do not sag. They must be kept dry at all times either by storing under cover or providing covers to the stack, so they are stored in a dry ventilated space. Care must be taken to avoid damage to edges, ends and surfaces. Panels must always be lifted from a stack by two people and then be carried on edge.
- 5.2 Accessories must be stored so they are kept clean, dry and undamaged. All accessories must be used within the maximum storage period recommended by the manufacturer.

Technical Literature

- 6.1 Refer to Pacific Build Supply Limited for details of the current Technical Literature for the PX3-0 XpressClad Ventilated Rainscreen. The Technical Literature must be read in conjunction with this Appraisal. All aspects of design, use, installation and maintenance contained in the Technical Literature and within the scope of this Appraisal must be followed.

Design Information

Timber Treatment

- 7.1 Timber wall framing behind the PX3-0 XpressClad Ventilated Rainscreen must be treated as required by NZBC Acceptable Solution B2/AS1.

Timber Framing

- 7.2 Studs must be provided at a maximum 600 mm centres and should be considered at the design stage to ensure support to all cladding panel joints. Nogs, where required, must be fitted flush between the studs.
- 7.3 Timber framing must comply with NZS 3604 or be to a specific design using AS/NZS 1170. Where specific design is required, the framing must be of at least equivalent stiffness to the framing provisions of NZS 3604.
- 7.4 Timber framing must have a maximum moisture content of 24% at the time of the cladding system application. [If the cladding system is installed to framing with a moisture content of greater than 24%, problems may occur at a later date due to excessive timber shrinkage.]

Wall Underlay

- 7.5 Flexible wall underlay detailed in accordance with E2/AS1 can be used with the PX3-0 XpressClad Ventilated Rainscreen on buildings within the scope of Paragraph 2.1 of the Appraisal and within all wind zones up to, and including Very High.
- 7.6 Rigid wall underlay where used, must be installed in accordance with the technical literature. Rigid wall underlays can be installed as to provide a degree of wind and earthquake bracing. The use of rigid wall underlay to provide bracing has not been considered and is outside the scope of this Appraisal.

XpressClad Support Rails

- 7.7 The XpressClad support rail components, when installed in accordance with the technical literature form a 20 mm wide drained and ventilated cavity behind the cladding panels, using vertical and horizontal aluminium rail profiles.
- 7.8 Horizontal rails are installed in continuous lengths to provide ventilation and drainage at every horizontal sheet joint.
- 7.9 Vertical rails are installed discontinuously in sections between the horizontal rails and located at vertical sheet joints. Vertical rails feature a central recess which is fitted with the XpressClad pocket filler – an aluminium finishing trim profile.



- 7.10 Intermediate support to the body of panels is provided using Z rails mounted vertically at 600 mm maximum centres.
- 7.11 The horizontal rails and Z rails feature punchings that ensure a ventilation opening area of at least 1000 mm² per lineal metre of wall in accordance with NZBC Acceptable Solution E2/AS1, Paragraph 9.1.8.3(b).
- 7.12 All horizontally mounted support rail profiles are overflashed from the wall underlay over the top edge of the profiles with a layer of flexible flashing tape.
- 7.13 All XpressClad support rail components shall be fixed to supporting framing with a minimum of 10g x 40 mm T17 pan head stainless steel screws at 250 mm maximum centres, ensuring a minimum fastening embedment depth into framing timber of 32 mm.

Cladding Panels

- 7.14 Cladding panels can be adhesive fixed to the XpressClad support rails, solely using the SikaTack® Panel-50 Adhesive System to a maximum installed height above ground level of 7 m.
- 7.15 Cladding panels with an installed height above ground level greater than 7 m must be fitted with panel fasteners, referred to as Life Safety Mechanical Backup Anchors (LSA) in addition to adhesive fixing. Four fasteners are required per cladding panel, located to each corner of the panel as detailed in the technical literature. Panel fasteners must be installed in accordance with the details contained within the technical literature.

Paint Selection

- 7.16 Pacbl'd Refined panels must be finished with an acrylic exterior paint system complying with AS 3730.

General

- 8.1 At ground level, the bottom edge of the PX3-0 XpressClad Ventilated Rainscreen must be kept clear of paved surfaces, such as footpaths, by a minimum of 100 mm and unpaved surfaces by 175 mm in accordance with NZBC Acceptable Solution E2/AS1, Table 18.
- 8.2 At balconies, decks or low-pitched roof/wall junctions, the bottom edge of the PX3-0 XpressClad Ventilated Rainscreen must be kept clear of any adjacent surface, or above the top surface of any adjacent roof flashing by a minimum of 35 mm in accordance with NZBC Acceptable Solution E2/AS1, Paragraph 9.1.3.6.
- 8.3 Where the PX3-0 XpressClad Ventilated Rainscreen abuts other cladding systems, the designer must detail the junction to meet their own requirements and the performance requirements of the NZBC. These details are outside the scope of this Appraisal.

Interstorey Junctions

- 8.4 Inter-storey drained joints must be provided to limit continuous cavities to the lesser of either 2-storeys or 7 metres in height, in accordance with the requirements of NZBC Acceptable Solution E2/AS1, Paragraph 9.1.9.4 (b).

Structure

Wind Zones

- 9.1 The PX3-0 XpressClad Ventilated Rainscreen is suitable for use on buildings situated in NZS 3604 Wind Zones up to, and including Extra High, or maximum design differential ultimate limit state [ULS] of 2.5 kPa.



- 9.2 Studs must be provided to ensure support to all vertical rail profiles. Where design wind pressures are less than 1.9 kPa, studs must be provided at 600 mm maximum centres. Where the design wind pressures are 1.9 kPa or greater, studs shall be at a maximum of 400 mm centres.

Impact Resistance

- 9.3 The Px3-0 XpressClad Ventilated Rainscreen will resist impacts likely to be encountered. The likelihood of damage to the cladding system from soft and hard body impacts should be considered at the design stage, and appropriate protection such as the installation of bollards and barriers provided for vulnerable areas.

Durability

Serviceable Life

- 10.1 The PX3-0 XpressClad Ventilated Rainscreen is expected to have a serviceable life of at least 15 years provided the cladding system is maintained in accordance with this Appraisal to ensure the cladding panels, adhesive and underlying support rails remain in good serviceable condition. Installations of Pacbld Refined cladding panel as part of the PX3-0 XpressClad Ventilated Rainscreen must be painted within 3 months of installation.
- 10.2 The SikaTack® Panel-50 adhesive system and the Xpressclad support rails are expected to have a serviceable life of at least equal to that of the cladding panels.
- 10.3 Microclimatic conditions, including geothermal hot spots, industrial contamination and corrosive atmospheres, and contamination from agricultural chemicals or fertilisers can convert mildly corrosive atmospheres into aggressive environments for fasteners. The fixing of the PX3-0 XpressClad Ventilated Rainscreen in areas subject to microclimatic conditions requires specific design in accordance with NZS 3604, Paragraph 4.2.4, and is outside the scope of this Appraisal.

Maintenance

- 11.1 Regular maintenance is essential for the PX3-0 XpressClad Ventilated Rainscreen to continue to meet the NZBC durability performance provisions and to maximise its serviceable life.
- 11.2 Annual inspections must be made to ensure that all aspects of the cladding system, including any applied or factory coating systems, flashings and sealed joints remain in a weatherproof condition. Adhesive joints between cladding panels and the aluminium rails should be checked for any signs of de-bonding. Any damaged areas or areas showing signs of deterioration which would allow water ingress must be repaired immediately. Sealant and paint coatings must be repaired in accordance with the sealant or paint coating manufacturer's instructions.
- 11.3 All exterior surfaces require an annual clean - a thorough soft wash with soapy water. Caustic based preparations should not be used. Paint systems must be recoated at approximately 7-15 yearly intervals in accordance with the paint manufacturer's instructions.
- 11.4 Minimum ground clearances as set out in this Appraisal must be maintained at all times during the life of the cladding. [Failure to adhere to the minimum ground clearances given in this Appraisal and the Technical Literature will adversely affect the long-term durability of the PX3-0 XpressClad Ventilated Rainscreen.]

Control of External Fire Spread

- 12.1 The Pacbld Refined cladding panel has a peak heat release rate of less than 100 kw/m² and a total heat released of less than 25 MJ/m². Testing was carried out as per NZBC Acceptable Solutions C/AS1-C/AS6 Paragraph 5.8.1.
- 12.2 Swisspearl cladding panels, Largo Carat Elfenbein [product code: 7099], Azurit [7041], Planea Blue [P 413] and Nobilis Blue [N 411], have peak heat release rates of less than 100 kw/m² and a total heat released of less than 25 MJ/m². Testing was carried out as per NZBC Acceptable Solutions C/AS1-C/AS6 Paragraph 5.8.1.
- 12.3 Refer to NZBC Acceptable Solutions and Verification Methods C/AS1-C/AS7 and C/VM2 for Requirements for fire rating and exterior surface finish requirements of external walls.

Prevention of Fire Occurring

- 13.1 Separation or protection must be provided to the PX3-0 XpressClad Ventilated Rainscreen and associated combustible materials from heat sources such as fire places, heating appliances, flues and chimneys. Part 7 of NZBC Acceptable Solutions C/AS1 – C/AS6 and NZBC Verification Method C/VM1 provide methods for separation and protection of combustible materials from heat sources.

External Moisture

- 14.1 The PX3-0 XpressClad Ventilated Rainscreen when installed in accordance with this Appraisal and the Technical Literature will prevent the penetration of moisture that could cause undue dampness or damage to building elements.
- 14.2 The cavity must be sealed off from the roof and sub-floor space to meet code compliance with Clause E2.3.5.
- 14.3 The PX3-0 XpressClad Ventilated Rainscreen allows excess moisture present at the completion of construction to be dissipated without permanent damage to building elements to meet code compliance with Clause E2.3.6.
- 14.4 The details given in the Technical Literature for weather sealing are based on the design principle of having a first and second line of defence against moisture entry for all joints, penetrations and junctions. The ingress of moisture must be excluded by detailing joinery and wall interfaces as shown in the Technical Literature. Weathertightness details that are developed by the designer are outside the scope of this Appraisal and are the responsibility of the designer for compliance with the NZBC.
- 14.5 The use of PX3-0 XpressClad Ventilated Rainscreen where there is a designed cavity drainage path for moisture that penetrates the cladding, does not reduce the requirement for junctions and penetrations to remain weather resistant.

Installation Information

Installation Skill Level Requirements

- 15.1 Installation and finishing of the PX3-0 XpressClad Ventilated Rainscreen must be completed by, or under the supervision of a Licensed Building Practitioner with the relevant License Class, in accordance with instructions given within the Technical Literature and this Appraisal.
- 15.2 The PX3-0 XpressClad Ventilated Rainscreen Quality Assurance Check Sheet must be completed during construction for every installation of the PX3-0 XpressClad Ventilated Rainscreen.

System Installation

Timber Framing

- 16.1 Studs must be provided at a maximum 600 mm centres to ensure support to all cladding panel joints and to provide support to all vertical rail profiles. Where design wind pressures are less than 1.9 kPa, studs must be provided at 600 mm maximum centres. Where the design wind pressures are 1.9 kPa or greater, studs shall be at a maximum of 400 mm centres.
- 16.2 Timber framing must have a maximum moisture content of 24% at the time of the cladding system application. [If the cladding system is installed to framing with a moisture content of greater than 24%, problems may occur at a later date due to excessive timber shrinkage.]



Wall Underlay

- 16.3 The selected building underlay must be installed by the building contractor in accordance with the underlay and tape manufacturer's instructions prior to the installation of the the rest of the PX3-0 XpressClad Ventilated Rainscreen. Flexible building underlay must be installed horizontally and be continuous around corners. Underlay must be lapped 75mm minimum at horizontal joints and 150mm minimum over studs at vertical joints. Rigid wall underlay (where used), must be installed in accordance with NZBC Acceptable Solution E2/AS1 and in accordance with the Pacific Build Supply Ltd instructions. Particular attention must be paid to the installation of the building underlay and sill and jamb tapes around window and door openings to ensure a continuous seal is achieved and all exposed wall framing in the opening is protected.
- 16.4 Prior to cladding installation, all pipes and penetrations must be sealed as per E2/AS1, clause 9.1.9.3. Xpressclad Support Rails

XpressClad Support Rails

- 16.5 The XpressClad support rail components, when installed in accordance with the technical literature form a 20 mm wide drained and ventilated cavity behind the cladding panels, using vertical and horizontal aluminium rail profiles.
- 16.6 All Xpressclad support rail components shall be fixed to supporting framing with 10g x 40 mm minimum T17 pan head stainless steel screws at 250 mm maximum centres, ensuring a minimum fastening embedment depth into framing timber of 32mm.
- 16.7 Welded horizontal corner sections [Pacblid ref. XHRWE] shall be installed first, at the external corners of the building, followed by the internal corners [Pacblid ref. XHRWI]. It is vital that the corner sections are installed level and true.
- 16.8 Horizontal rail profiles [Pacblid ref. XHR] are fitted between the corner sections ensuring a 3 mm expansion gap at the end of each installed length. Horizontal rails must be installed straight and level and can be packed out from the wall to a maximum of 10 mm to account for deflections in the substrate.
- 16.9 Intermediate support to the body of panels is provided using Z rails [Pacblid ref. XZR20] mounted vertically at 600 mm maximum centres or as required to suit the design wind pressure.
- 16.10 All horizontal support rail profiles are overflashed from the wall underlay over the top edge of the profiles with a layer of flexible flashing tape.

Cladding Panels

- 16.11 Cladding panels must be set out with close attention given to the dimensional tolerances given in the technical literature – failure to adhere to these may compromise the weathertightness performance of the cladding system and will result in an installation which is of low visual quality.
- 16.12 Adhesive fixing of the cladding panels is to be carried out strictly in accordance with the instructions given by Sika AG, with particular attention paid to requirements for skin time, tack-free time and peel adhesion tests which are to be carried out by the installer with the results noted on the daily installation record.
- 16.13 Recommendations for weather conditions for adhesive installation as stated by Sika AG in the technical literature must be observed at all times during cladding installation. Failure to observe these may result in reduced performance of the adhesive joint.
- 16.14 Panel Fasteners or Life Safety Mechanical Backup Anchors [LSA] shall be installed when required in locations within the body of the cladding panels in accordance with the instructions of Pacific Build Supply Limited. Holes drilled into the cladding panels shall be oversized by 3 mm – giving a hole of 11 mm diameter in most instances.

Aluminium Joinery Installation

16.15 Aluminium joinery and associated head and sill flashings must be installed by the building contractor in accordance with the Technical Literature. The framed window opening should be sized to allow a 10 mm nominal gap between the joinery reveals and the wall framing to allow for final positioning of the window to suit the cladding layout. The joinery air seal can be installed after the joinery has been secured in place.

Inspections

17.1 The Technical Literature must be referred to during the inspection of PX3-0 XpressClad Ventilated Rainscreen Installations. The PX3-0 XpressClad Ventilated Rainscreen Quality Assurance Check Sheet must be completed during construction for every installation of the PX3-0 XpressClad Ventilated Rainscreen.

Finishing

17.2 The coating manufacturer's instructions must be followed at all times for application of paint finishes on Pacbld Refined cladding panels. It must be ensured that all surfaces are clean and dry before commencing painting.

Health and Safety

- 18.1 Cutting of PX3-XpressClad Ventilated Rainscreen components must be carried out in well ventilated areas, and a dust mask and eye protection must be worn.
- 18.2 When power tools are used for cutting, grinding or forming holes, health and safety measures as set out in the Technical Literature must be observed with regard to the amount of dust generated.
- 18.3 Safe use and handling procedures for the components that make up the cladding system are provided in the relevant manufacturer's Technical Literature.

Basis of Appraisal

The following is a summary of the technical investigations carried out:

Tests

19.1 Testing has been carried out by an accredited laboratory to NZBC E2/VM1 requirements (as contained within NZBC Clause E2, Third Edition, Amendment 5) and AS/NZS 4284 requirements. The results have been reviewed by BRANZ and found to be satisfactory. In addition to the weathertightness test, the details contained within the Technical Literature have been reviewed, and an opinion has been given by BRANZ technical experts that the system will meet the performance levels of Acceptable Solution E2/AS1 for drained cavity claddings.

Investigations

- 20.1 Structural, durability and weathertightness opinions have been given by BRANZ technical experts.
- 20.2 Site inspections have been carried out by BRANZ to assess the practicability of installation, and to examine completed installations.
- 20.3 The manufacturer's Technical Literature has been examined by BRANZ and found to be satisfactory.



Quality

- 21.1 The manufacture of PX3-0 XpressClad Ventilated Rainscreen components has not been examined by BRANZ, but details regarding the quality and composition of the materials used were obtained by BRANZ and found to be satisfactory.
- 21.2 The quality management system for the manufacture of Pacbld Refined, Swisspearl, Parklex and Sika has been assessed and registered as meeting the requirements of ISO 9001: 2015
- 21.3 The manufacturer of Pacbld Refined has a CE Declaration of Performance for the product to the requirements of EN 12467 based upon testing that has been examined by BRANZ. Their factory production control is monitored by the notified body, in this case MPA NRW Germany.
- 21.4 The quality of materials, components and accessories supplied by Pacific Build Supply Ltd are the responsibility of Pacific Build Supply Ltd. The quality control system of Pacific Build Supply Ltd has been assessed by BRANZ and found to be satisfactory.
- 21.5 Quality of installation on site of components and accessories supplied by Pacific Build Supply Ltd and the building contractor is the responsibility of the installer. The PX3-0 XpressClad Ventilated installation of the PX3-0 XpressClad Ventilated Rainscreen.
- 21.6 Designers are responsible for the building design, and building contractors are responsible for the quality of installation of framing systems and joinery, building underlay, flashing tapes, airseals, joinery head flashings and cladding panels in accordance with the instructions of Pacific Build Supply Ltd.
- 21.7 Building owners are responsible for the maintenance of the cladding system in accordance with the instructions of cladding manufacturer and designer.

Sources of Information

- AS 3730: Guide to the properties of paints for buildings.
- AS/NZS 1170 Structural design actions
- AS/NZS 2908.2: 2000 Cellulose-cement products – flat sheet.
- NZS 3604: 2011 Timber-framed buildings.
- NZS 4211: 2008 Specification for performance of windows.
- Compliance document for NZBC Durability Clause B2, Ministry of Business, Innovation and Employment, Second edition February 1998 [Amendment 30 November 2018].
- Compliance document for NZBC External Moisture Clause E2, Ministry of Business, Innovation and Employment, Third edition July 2005 [Amendment 30 November 2018].
- Ministry of Business, Innovation and Employment Record of Amendments for Compliance Documents and Handbooks.
- The Building Regulations 1992.



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PX3-0 XpressClad Ventilated
Rainscreen



In the opinion of BRANZ, **PX3-0 XpressClad Ventilated Rainscreen** is fit for purpose and will comply with the Building Code to the extent specified in this Appraisal provided it is used, designed, installed and maintained as set out in this Appraisal.

The Appraisal is issued only to **Pacific Build Supply Limited**, and is valid until further notice, subject to the Conditions of Appraisal.

Conditions of Appraisal

1. This Appraisal:
 - a) relates only to the product as described herein;
 - b) must be read, considered and used in full together with the Technical Literature;
 - c) does not address any Legislation, Regulations, Codes or Standards, not specifically named herein;
 - d) is copyright of BRANZ.
2. **Pacific Build Supply Limited.**
 - a) continues to have the product reviewed by BRANZ;
 - b) shall notify BRANZ of any changes in product specification or quality assurance measures prior to the product being marketed;
 - c) abides by the BRANZ Appraisals Services Terms and Conditions;
 - d) warrants that the product and the manufacturing process for the product are maintained at or above the standards, levels and quality assessed and found satisfactory by BRANZ pursuant to BRANZ's Appraisal of the product.
3. BRANZ makes no representation or warranty as to:
 - a) the nature of individual examples of, batches of, or individual installations of the product, including methods and workmanship;
 - b) the presence or absence of any patent or similar rights subsisting in the product or any other product;
 - c) any guarantee or warranty offered by **Pacific Build Supply Limited**.
4. Any reference in this Appraisal to any other publication shall be read as a reference to the version of the publication specified in this Appraisal.
5. BRANZ provides no certification, guarantee, indemnity or warranty, to **Pacific Build Supply Limited** or any third party.

For BRANZ

Chelydra Percy

Chief Executive

Date of Issue:

18 December 2018