

# QuickClad

## Insulated Wall Cladding

Class PB EIFS providing a primary moisture barrier

### Introduction:

- Beneath this tough, seamless energy efficient exterior wall cladding is Energy Savings that will last the life of your structure.
- Choices of decorative finish and textures to suit any culture are available or as selected by your architect from the QuickClad range.
- QuickClad is tested and approved for cyclonic wind conditions of W 60 C. *(See cyclonic installation specifications in the installation brochure.)*
- Energy efficient insulation board is fixed to the structural members with QuickClad non-rust discs prior to the QuickClad surfacing in accordance to the specification provided in the installation brochure.

### Installation:

- Please refer to the QuickClad Installation guide brochure for an easy step by step procedure complete with photo examples.

### Standards:

PRODUCT	STANDARD
Stud Frame Walls / Structural Walls	Wall frames to be in accordance to the building code of Aust, N.Z. U.K. - BS - USA.
Flame Retardant Rigid Insulation Board	Manufactured in accordance to A.S.1366.3 1992, / B.S. 3837: B.S. 476: Part 5:1979 / ASTM C 177
QuickClad structural system For cyclonic wind loads W60 C	BHP NATA test results on document qc.wall drawing No:P10624
Fire Standard	Conforms to A.S. 1530.3, ANZ 1562.3 B.S. 476 part 1987
QuickClad flexible fibre polymer cement base coat and architectural finishes	Manufactured in accordance to ISO 9002 Accredited government supplier under clause 15:01 P.A. 93/024

Table 1

## Part 1 – PRODUCTS DETAILED

### 1.0 Manufacturer

- A. Quickwall Australia Pty Ltd,
- B. All components of the QuickClad insulated wall cladding shall be obtained from Quickwall Group of companies or accredited distributor.

### 2.01 Materials

- A. Adhesive – shall be compatible with the insulated board, substrate, and reinforcing mesh and supplied by Quickwall Group.
- B. Fasteners – shall be QuickClad fixing discs and all nails, screws to comply with class 2 coating or galvanizing or stainless steel.
- C. Insulation Board – shall be manufactured to or equivalent to A.S. 1366.3 1992 fire retardant board sheet with a density of 15kg /m<sup>3</sup>. The board shall have a vertical 10mm saw-tooth computer cut to both sides.
- D. Base Coat – shall be polymer modified QuickClad base coat manufactured by the Quickwall Group.
- E. Reinforcing mesh – shall be alkali resistant coated 4.5mm open weave glass fibre mesh.
- F. Paper faced Foil – shall be installed to the external stud frame walls prior to installation of the QuickClad insulation board.
- G. Finish Coat – shall be the type and texture specified by the Architect & or owner from the Quickwall range of architectural Quickwall polymer modified textures or renders.
- H. Accessories – if required by system manufacturer, shall be of proper size and configuration for the intended purpose, and shall be fabricated from zinc coated steel, zinc alloy, or rigid PVC plastic virgin materials.
- I. Water – shall be clean and potable.
- J. Sealants – shall be recommended by the sealant manufacturer for use with the selected EIFS, and shall be a paintable polyurethane.

## **Part 2 – PROCEDURAL WORKS**

- 2.01 Daily Site Work Sheet – shall be completed by the approved applicator daily.
- 2.02 Installation – shall be as per Installation brochure or as detailed by specific drawings for unusual circumstances.
- 2.03 Summer Installation – shall be considered normal and no special requirements/mixing required.
- 2.04 Winter Installation – supplementary heat shall be furnished for application when the temperature is less than 4.4 degrees Celsius (40 degrees Fahrenheit). Sufficient ventilation and time shall be provided to ensure that materials have sufficiently dried prior to removing supplementary heat.
- 2.05 Protection – should be applied to the surrounding areas and surfaces during the application of the wall system.
- 2.06 Coordination and Scheduling
  - A. The work in this section requires close coordination with related sections and trades.
  - B. The tops of all walls shall immediately be covered with the final trim, or temporary protected, to prevent water infiltration behind the system. The cap flashings shall be installed as soon as possible after the finish coat has been installed.
  - C. All sealants shall be installed in a timely manner. Protect open joints from water intrusion during construction with temporary covering until permanently sealed.

## **Part 3 – EXECUTION**

### **3.01 Installation**

- A Installation shall be performed in accordance with system manufacturer's current published instructions brochure.

### **3.02 Substrate**

1. Prior to application of QuickClad the approved applicator shall examine the following:-
  - A. The substrate shall be the type approved by the respective countries building code and / or the system manufacturer.
  - B. The substrate shall be free of planar irregularities greater than 6mm in 2.4 metres ( ¼ inch in 8 ft) and be sound and free of foreign substances.
  - C. All flashings are installed correctly including roof, openings, chimneys, balconies, decks, windows, doors and or termite proofing.
  - D. Unsatisfactory conditions shall be reported to the Main Contractor and corrected by the substrate installer and detailed on the QuickClad daily site work sheet.

### **3.03 Application**

- A. Method of Attachment of paper back foil and Insulation Board – shall be in accordance to the system manufacturer or applicable building code. Paper backed foil sheet shall be installed and fixed vertically with 100mm overlaps and the insulation board fixed horizontally commencing from the base to a level line or support.
- B. Method of Insulation board attachment – shall be in accordance to the manufacturer's current publicized instructions.
- C. Adhesive Method – for flat surfaces – shall be applied by a 5mm notch trowel or spot dabs of approximately 100mm x 10mm thick where stud frame walls are specified to the external face of the frame. In either case the insulation board must be positioned prior to the adhesive skinning off. Pressure to be applied evenly to the insulation board to insure a uniform grab of adhesive to the rear of the insulation board.
- D. Mechanical fasteners – shall be installed in accordance to the wind load table as shown in the installation manual using QuickClad fixing discs.

- E. The insulation boards – shall be applied in a running bond pattern with staggered vertical joints and interlocking at the inside and outside corners.
- F. Gaps – shall be filled with insulation. Gaps shall not be filled with non isolative materials and all irregularities to be sanded flat.
- G. UV exposure – where insulation boards are exposed to high UV Sunlight such as in tropical environments, the base coat shall be applied immediately to protect the board from the surface developing a powdery film. *This film must be removed by sanding or a stiff broom.*
- H. Applying reinforcing mesh and QuickClad Base Coat composite – the base coat shall be mixed with a 2:1 ratio of water/QuickClad polymer (water/polymer) to a creamy workable consistency. Trowel or Spray apply the base coat filling the QuickClad saw tooth board level.  
Place the 160 grms/m<sup>2</sup> reinforced mesh vertically with 75mm overlaps embedding it into the into the fresh base coat. Add additional base coat, and trowel flat using a 450mm flat trowel for best results to the thickness as specified by the system manufacturer and allow to dry prior to the selected top coat finish.
- I. All areas exposed to abnormal stress or deliberate impacts – shall have the base coat reinforced with a double layer of reinforcing such as all corners of openings, facades, or commercial ground floor applications.
- J. EPS shapes installed over QuickClad on non-combustible construction – shall have reinforcing mesh embedded into the base coat.
- K. Applying the Finish.
  - 1. Prior to application of the selected finish/texture/render coat, surface irregularities in the base coat shall be corrected.
  - 2. Apply the finishing coat to a dry base coat maintaining a wet edge at all times to obtain a uniform consistency. The thickness of the finish coat shall be in accordance to the systems manufacturers' current published brochure. The water/polymer ratio shall be- 4:1 in the mineral based finishing coat/plaster applied by an approved QuickClad applicator.
  - 3. Final top coat will be two coats of quality Quickwall acrylic Aqua-seal membrane paint or equivalent.

## Part 4 – TECHNICAL DATA

### 4.01 Structural Continuous Fibre Mesh

The continuous monolithic alkali resistant fibreglass reinforcing mesh suspended in the QuickClad 2-pack polymer modified mineral composite has the following properties in Table 2.

Homologation	(I) – ICITE, (A)–MA39, (CH)–EMPA,(D)–FMPA
Weight Finished Mesh	Approximately 160 – 167 g per m <sup>2</sup> ( UNI) 9311/4
Mesh Width	4.5mm x 5mm
Finish	Anti-Alkali
Resistance to	Warp approx. N/5cm 2100 (UNI) 9311/5
Tensile Strength	Weft approx. N/5cm 2300 (UNI) 9311/5

Table 2

### 4.02 Building Regulations 1994 Regulation 15.7(2) Certification of Compliance Design (Form 13)

QuickClad is an Exterior Wall Cladding System. The structural integrity of the framing still relies solely on the framing used. Standard conventional framing either steel or timber is acceptable whereby the building components have been designed in accordance with the BCA, BSA and the following standards:

- AS 1170.1 – 2002, SAA Loading Code Part 1. Dead or Live Loads.
- AS 1170.2 – 2002 SAA Loading Code Part 2. Wind Loads
- AS 3600 – 1994, Concrete Structures
- AS 1684 – 2002 Timber Framing Code
- AS/NZS 4600 – 1996, Cold Formed Steel Structures

Or where accompanied by a certificate from an accredited professional engineer.

### 4.03 Formula to Determine Thermal Insulation Values

When a government or architect requires a specific R-value there is a simple procedural calculation formula to determine the thickness of board sheet / R-value. The Q.S will determine the K-Value first to establish the R-Value. By example let's presume the specification requires an R-Value of say 1.5

**K-Value** Step 1: 1.5 multiplied by .036 = .054 (the board thickness will need to be .54 mm thick )

**R-Value** Step 2: Board thickness is .054mm so  
.054 divided by .036 = 1.5 Kw/m<sup>2</sup>/Kw ( R-Value of 1.5 )

## Part 5 – CYCLONIC WIND LOAD CERTIFICATION for W 60 C wind loads

### 5.01 Wind Loads

5.02 Specifying the appropriate thickness of composite to suit the particular wind load in accordance to the test results of BHP NATA testing station is shown below in Table 3.

### 5.03

Wind Loads	Base Coat	QuickClad Finish
W33 – W41	3 – 4mm	Quick Sand Finish
W41 – W47	4 – 5mm	Quick Sand Finish
W47 – W57	4 – 5mm	Quick Sand Finish
W60 C	10mm	Quick Sand Finish

Table 3: Material Thickness

- **Note:** For cyclonic / typhoon regions applicators shall strictly use QuickClad two pack polymer modified mineral coating.
- **Note:** Do Not use Acrylic coatings otherwise warranty will be void.

5.04 Disc fastening wind load spacing for Corners and Openings in Cyclonic wind load regions in Table 4.

### 5.05

Wind loads	Corners	Openings
W33 – W41	450mm	400mm
W41 – W47	450mm	350mm
W47 – W57	400mm	300mm
W60 C	300mm	150mm

Table 4: QuickClad Fixing Discs for High Wind Load Regions

5.06 Fastener Notice for Steel stud frames

- Do not use Ribbed Countersunk Head
- Use self drilling 10-24 x 65mm CSK Tek Screws

5.07 Fastener Information Tables 5, 6 & 7:

Sheet thickness	Screw length	Part No:	Class 2 Coating
60mm	65mm	#6-3-0058-4	Yes

Table 5: Steel Stud Frame

Sheet Thickness	Nail Length	Nail Gauge	Nail Type	Product No:
75mm	100mm	3.75mm	Flathead Gal.	#FG10037

Table 6: Timber Stud Frame

Flat Concrete surfaces	Block & Brick works	Cement Sheet	Rough deep texture
6mm notch trowel	6mm notch trowel	6mm notch trowel	Spot dabs every 300mm

Table 7: Solid Substrates

## **Part 6 – Daily Project Report Sheet**

Approved Field Applicators – shall complete a daily report sheet on every project. A copy will be accompanied with their request for warranty registration.



## **7.0 - Delivery, storage and handling.**

- A. QuickClad materials will be collected or delivered to the project site in the original, unopened packages with labels intact.
- B. Upon arrival, materials shall be inspected for physical damage, freezing, or dampness. Questionable materials will not be used.
  - 1. Materials shall be stored at the job site in a cool, dry location, out of sunlight, protected from weather and other sources of damage. Minimum storage shall be not less than 4 degrees Celsius and not exceeding 45 degrees.
  - 2. Protect all products from inclement weather.

## **8.00 - Cleaning & Protection**

All excess material will be removed or recycled in accordance with contract provision and as required by law. The approved applicator shall inform the main contractor of completed works that are free of any foreign substance resulting from the contractors work so that the main contractor can protect the area.

## **Part 9 - Warranty**

Approved Applicators – shall make application to register their project for warranty. The application provided by the systems manufacturer requests the correct

- 1. Applicator details complete with license number
- 2. Project address
- 3. Job description
- 4. Substrate
- 5. Area / m<sup>2</sup>
- 6. Quantity of Base coat, Finish coat and litres of polymer used.
- 7. Builders details in full

The applicator will warrant the project is confirmed paid in full by the respective client/builder/main contractor and applied in accordance to the systems manufacturer's specifications and the applicator will warrant his/her/entity workmanship.

### **9.01 Warranty Term**

The warranty period is ten years.