

ZCLAD INSTALLATION MASTERGUIDE

General guidance for ZClad Panels, ZClad Plus, stone slips, stone veneer and ZBoard-backed installations.

READ FIRST

Professional installation is recommended but not required. Check the project-specific structural design before work begins: ZClad Panels and ZClad Plus can create an installed load of approximately 84-85 kg/m².

1. BEFORE INSTALLATION

Select, blend and prepare

- Open and blend from several boxes / pallets before fixing. Do not complete a wall one layer or pallet at a time.
- Confirm the intended stone mix, colour variation, joint width and detailing before adhesive is applied.
- Keep every stone face and the substrate free from dust, loose material, debris and contamination.

Weather and curing conditions

- Install only in dry, suitable conditions. Do not apply adhesive to frozen, saturated or overheated substrates.
- Minimum working temperature for cement-based adhesive is 5°C and rising. Below this, ice crystals can compromise the cement bond.
- Protect fresh work from frost, rain, direct hot sun and strong drying winds until cured. Follow the adhesive manufacturer's curing guidance.

2. SUBSTRATE, STRUCTURE AND BACKING BOARDS

Direct-to-wall installations

- The substrate must be sound, flat, free from cracks and capable of supporting the cladding system.
- Breeze block and Thermalite are generally suitable where structurally sound. Plasterboard is not suitable: its paper lining cannot carry panel or veneer loading.
- Terminate cladding at substrate control / expansion joints. Never bridge an expansion joint; treat each side as an independent installation.

Timber, steel, ICF and SIP systems

- For timber frame, SFS, LGS, ICF and SIP construction, use a minimum 12mm cement backer board (ZBoard) on an engineered support system.
- The board manufacturer and a qualified structural engineer must confirm the board, batten, frame and fixing design will support 84kg/m² plus the board weight.
- Fix boards to the supporting structure; typical batten centres are 300mm laterally and vertically. Do not rely on plasterboard, OSB alone or an unverified facing.

3. ZBOARD QUICK GUIDANCE

LAY OUT

Stagger boards in a brick-bond pattern. Leave a 3-5mm movement gap between boards and at edges.

FIX

Apply Mega Strength polyurethane to battens before screws. Use appropriate corrosion-resistant cement-board screws into the frame.

JOINT

Cover board gaps with external sheathing tape. Intumescent sealant is only used where the build-up forms part of a firewall.

ZCLAD PANEL SYSTEM INSTALLATION

Heavy-duty, mechanically assisted natural stone cladding for secure external and internal applications.

1. SETTING OUT AND FIRST COURSE

Start correctly

- Work in from external corners and set out the opening / panel returns before starting the main field.
- Use a securely fixed temporary batten to carry the first course. Keep the first course at least 80mm above ground level and above the DPC.
- Plan panels around doors, windows, vents and changes of material before applying adhesive.

Adhesive bed

- Use ZClad high-performance polymer-enhanced cement-based S1 adhesive. S1 provides increased deformability and flexibility (typically 2.5-5mm).
- Apply a 2-3mm skim coat to the immediate substrate to even out minor imperfections and achieve adhesive-to-adhesive contact.
- Fully butter the rear of the panel with adhesive; press and adjust into the prepared skim coat to obtain complete, consistent bedding.

2. MECHANICAL FIXING, OPENINGS AND RETURNS

Additional support

- Deploy the panel mechanical fixing as a secondary fixing for areas above doors and windows and at heights above 3m / 11ft.
- Use a 40mm masonry screw directly into a suitable substrate where specified. A masonry angle or temporary timber prop can provide additional support above openings.
- Check the substrate is approved for the applied load before relying on any fixing detail.

Windows and end details

- ZClad quoins can return into an aperture where the depth permits. Allow for the ZClad thickness, generally 25-45mm.
- Where there is insufficient return depth, use an appropriate trim strip to finish the end of cladding cleanly.
- Do not position a vent or opening in the centre of a panel where cutting could dislodge individual stone pieces.

3. MOISTURE, VENTS AND INTERFACES

Cavity trays and weepholes

- Keep cavity tray drainage paths operational. Where weepholes sit behind cladding, drill matching drainage holes through the cement base and stone layer.
- Clear excess adhesive from the aperture and use a silicone bead at the rear of the hole to form a watertight bond to the substrate.
- Check every drain point aligns before the panel adhesive cures.

Air bricks, render and other cladding

- Extend air bricks with a suitable cavity sleeve so the vent finishes flush with the new cladded face. Silicone-seal around the sleeve / vent where it projects through the cladding.
- Where ZClad meets render or another cladding finish, install a horizontal drip-trim flashing onto the substrate to create a clean, weathered junction.
- Keep any building expansion joint clear and independent.

VENEER & STONE SLIP INSTALLATION

A flexible, mortar-jointed natural stone and veneer finish for façades, features and detailed architectural work.

1. PREPARE, SKIM AND FIX

Preparation

- Check the substrate is flat, sound and free from cracks, dust and debris. Start work from corners and maintain a position above the DPC.
- Apply a 2-3mm adhesive skim coat to the immediate cladding area. This improves flatness and provides the strongest adhesive-to-adhesive bond.
- Set out corner pieces, reveals and any end trims before starting the field of slips.

Fixing each piece

- Apply adhesive to each individual stone slip and fully cover the rear face. Press firmly into the prepared adhesive skim coat.
- Use spacers to maintain the chosen joint width and check levels frequently. Do not allow adhesive to cure on the natural stone face.
- Blend pieces from multiple boxes to distribute natural variation evenly. Cut and shape pieces as needed for a balanced final selection.

2. MORTAR, LIME MORTAR AND GROUT JOINTS

CEMENT MORTAR

Standard cement mortar is generally suitable for jointing stone slips and gives a robust, traditional finish.

LIME MORTAR

Lime mortar provides a lighter, softer visual finish and can better suit traditional or heritage-style schemes.

GROUT

Grout is available in a broad range of colours. It creates a smoother joint, rather than the more earthy, grit-like appearance of mortar.

3. GOOD INSTALLATION PRACTICE

Cleaning and handling

- Never use acid cleaning agents on natural stone. If cleaning is necessary, use a non-corrosive, non-acidic product and always test a discreet area first.
- Wash dust from stone only where appropriate, keeping the nozzle at least 300mm from the face. Allow dampened materials to dry naturally before adhesive application.
- Remove squeezed-out adhesive promptly from joints and surfaces before it sets.

Weather and final appearance

- Do not install in poor weather or outside adhesive temperature limits. Protect fresh work from frost, rain and rapid drying.
- Check joint lines, stone variation and proportions as the wall develops. A final selection made progressively reduces unnecessary cutting and waste.
- For pointing, use temporary foam spacers or another suitable method to keep a consistent joint width.

4. ZCLAD PLUS

ZClad Plus should be installed onto a verified, suitable substrate using the appropriate adhesive and any product-specific mechanical fixing / jointing detail. Follow the same fundamental principles in this guide: structural support, clean preparation, suitable weather, full adhesive coverage, movement-joint separation and correct finishing at openings and interfaces.

CHECKS AND TECHNICAL REMINDERS

Use this page as a pre-start and handover checklist for every ZClad installation.

PRE-START CHECKLIST

STRUCTURE • Qualified structural approval in place • Substrate sound, flat and clean • Expansion joints identified and isolated	WEATHER + ADHESIVE • Temperature 5°C and rising • No frost, rain or rapid drying risk • Correct S1 adhesive / mortar selected	DETAILING • DPC and first-course level confirmed • Vents and weepholes kept operational • Windows, returns and interfaces set out
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SYSTEM-SPECIFIC CHECKS

ZCLAD PANELS / PLUS	First course supported; adhesive skim coat applied; full panel bedding achieved; secondary mechanical fixing deployed above openings and at height.
STONE SLIPS / VENEER	Individual pieces fully buttered; joint spacers used; clean joint faces; mortar, lime mortar or grout selected for the intended finish.
ZBOARD / FRAME SYSTEMS	Minimum 12mm board; engineered support; boards fixed and staggered; 3-5mm gaps taped; firewall sealant only where required.

PRODUCTS ZCLAD CAN SUPPLY

ZBOARD FIBRE-CEMENT BOARDS 1200 x 800mm heavy-duty boards	EXTERNAL RENDER BOARD SCREWS High-performance fixing screws
MEGA STRENGTH POLYURETHANE 310ml cartridge for batten / board preparation	EXTERNAL SHEATHING TAPE 50mm x 20m roll for board joints

IMPORTANT TECHNICAL NOTE

This is general installation guidance, not a substitute for project-specific design. The installer must comply with the latest product data, relevant building regulations, manufacturer instructions and the structural engineer's approved design.