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Stone Slip to Walls, Installation Specification. 12 Longbeach Rd & SH1, Ashburton. NZ.

This specification covers the installation of stone slips, to cement masonry units (CMU) or other suitable cement backer board substrates. Refer to Architectural Drawings and Details for specific installation materials & methods for each specific area and application.

WITNESS POINTS:

Give sufficient notice, so inspections can be made by the contractor in the presence of the builder, specifier, owner or any other persons deemed relevant, as required.

1.0 GENERAL:

1.1 All works shall be carried out by experienced qualified trades.

2.0 SCOPE OF WORK:

2.1 Furnish all labour, materials and equipment necessary to complete the installation of stone slips in shock resistant installation system, as specified herein and where indicated in drawings. Install thin, load bearing waterproof membranes, as specified and indicated in drawings if required.

NOTES:

2.2 "No sealers, crystalline waterproofing additives or curing compounds shall be used on CMU or cement backer board which are to be covered with stone. Allow surfaces to cure before the installation of stone slip or membrane. Areas that are to receive stone work, installed by the thin bed method, shall be true to within 3 mm in 3 m from the required plane and 1.5mm in 600mm from the high spot. Areas requiring fill, patching or levelling shall be prepared / rendered using LATICRETE 3701 Fortified Mortar Bed or LATICRETE 254 Platinum Adhesive in accordance with the manufacturer's instructions. Gypsum or asphalt based levelling compounds shall not be permitted. No polyvinyl (PVA) acetates shall be permitted in any substrate to receive stone slips. The surface, which is to be covered, shall be left clean, free of dust, plaster, sealer or curing compounds and form oil. Any contamination shall be removed by the Contractor who applied the material."

2.3 Stone slips and there, fixing and grouting mortars do not constitute a waterproof barrier. Specify & detail LATAPOXY Moisture Shield & LATICRETE HYDRO BAN Liquid Applied Waterproof Membrane.

2.4 Unless otherwise noted in this document, product data sheets, how to guides, technical data sheets and other LATICRETE guidelines, all work shall be in accordance with AS3958.1&2 and relevant waterproofing codes.

2.5 Consult the relevant, current product data sheets and how to guides for more complete and installation information on products specified in this document.

2.6 Follow all occupational health and safety and site safety procedures. Refer to the relevant material safety data sheets for all safe handling information on the products nominated in this specification.



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2.7 For the purpose of this specification all Stone slips are deemed dimensionally stable, not moisture sensitive, fit for purpose and suitable for the proposed application by the manufacturer. Consult LATICRETE if there are any backings on these stone prior to fixing.

2.8 Concrete or other masonry should not have internal moisture content greater than 75% relative humidity as measured with moisture probes.

2.9 Surfaces must be structurally sound, stable and ridged enough to support the stone. Substrate deflection under all live, dead and impact loads, including concentrated loads, must not exceed $L/480$ for stone slips where $L = \text{span}$. Substrate deflection under all live, dead and impact loads, including concentrated loads for external framed and sheeted backgrounds must not exceed $L/600$ for stone slips where $L = \text{span}$.

2.10 The cement backer board or drywall surface shall be deemed fit for purpose and suitable for the installation by its manufacturer. Ensure cement backer board is suitable for the proposed load.

3.0 MATERIALS:

3.1 All stone slip where called for, shall be as supplied by (.....)

3.2 Renders & patching materials shall be: LATICRETE 3701 Fortified Mortar Bed.

Skimming materials shall be: LATICRETE 254 Platinum Tile Adhesive.

Waterproofing & crack suppression materials shall be: LATICRETE HYDRO BAN Waterproof Membrane and LATAPOXY Moisture Shield

Stone adhesives materials shall be: LATICRETE 254 Platinum Tile Adhesive.

Stone grout materials shall be: LATICRETE PERMACOLOR Grout

Joint sealant materials shall be: LATICRETE LATASIL Sealant and LATASIL 9118 Primer as required.

All waterproofing, render mortars, stone fixing and grouting materials shall be as provided by LATICRETE Australia PTY LTD, 29 Telford Street, VIRGINIA, QLD 4014, Australia. Telephone: 1800331012.

Email: jared@globaltile.co.nz Web: www.globaltile.co.nz/laticrete

Installation shall be in strict accordance with manufacturer's instructions.

3.3 All installation materials shall be compatible and from one manufacturer.

3.4 All materials shall be delivered to the job site in the original factory containers with the manufacturer's identification on each package. The addition of water or other materials to dilute the installation materials on the job site will not be permitted.

4.0 APPROVALS AND SAMPLES:

4.1 Provide mock ups of each type/style/finish/size/colour of the stone slip along with respective installation adhesives, mortars, grouts and other installation materials to match as close as possible the final installed environment.

5.0 HANDLING AND STORAGE OF MATERIALS:

5.1 Handle, store, mix and apply proprietary installation materials in strict compliance with the manufacturer's instructions.

6.0 MORTAR, GROUT MIXES & WATERPROOF MEMBRANES:



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6.1 Portland Cement Renders, Levelling Beds & Scratch Coats:

27.3 kg LATICRETE 3701 Fortified Mortar Bed (Adjust quantity of water to obtain proper consistency)

6.2 Waterproof and Anti-fracture Membrane:

15 Litre LATICRETE HYDRO BAN Waterproof Membrane.
20 Litre Unit LATAPOXY Moisture Shield

6.3 Portland Cement Tile Adhesive & Skim Coats:

23 kg bag LATICRETE 254 Platinum Tile Adhesive

6.4 Grout:

11.3 kg bags LATICRETE PermaColor Grout (40 colours as per LATICRETE colour chart)

6.5 Movement Joint Sealant

305ml tube LATICRETE LATASIL
LATASIL 9118 Primer

7.0 PREPARATION & CLEANING:

7.1 Inspection - Prior to commencing the installation, the contractor shall examine the areas to be covered and advise the Main Builder and Architect of any existing conditions or surface contamination, which will require correction before the work commences. Substrate must be clean & free from form oil, curing compounds, laitance, dirt or any other foreign material that may inhibit bond. Allow wet substrates to dry.

7.2 Preparation - As required, the masonry substrate shall be prepared/processed by grit blast, scarifying, sand blasted, hydro blasted or by whatever method deemed by the contractor necessary to prepare the surface: to expose the fine aggregate; and to present with a sound, clean open pored surface, prior to installing render, waterproofing or adhesives. Drywall and sheeted surfaces should be rigid, plumb and true with flush sheet joints as per the manufacturer's specifications.

7.3 Cleaning - As required the substrate shall be cleaned after surface preparation and processing to remove surface dirt and contamination or weakened surface layers. Any approved cleaning agents must be completely removed, neutralized and rinsed.

8.0 MIXING:

8.1 Mixing: Mix according to printed product instructions included with each product package. Mix only long enough to wet out the batch. Do not over-mix.

9.0 SURFACE PATCHING, LEVELLING COATS & MORTAR BEDS:

9.1 Dimensional surface correction is necessary if the wall surface is not finished accurately to meet levelness or flatness tolerances for direct application of the stone slip using the thin bed methods of application. The substrate should not vary more than the above specified flatness tolerance and have not more than 1mm lippage between adjoining edges of drywall sheets.

9.2 Render - LATICRETE 3701 Fortified Mortar Bed as a wall render is mixed to a wetter, plastic consistency. Carry any underlying movement joints to the surface.



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9.3 No slurry bond coat is required prior to placing wall renders. Apply wall render with a steel trowel pressing mortar into good contact with the prepared substrate. Apply “scratch coat” first – not to exceed 12mm thickness. Scratch mortar before it hardens. After “scratch coat” hardens, apply the “float coat” working the mortar into good contact with the scratch coat. Do not exceed 15mm thickness per lift. Scratch all lifts that will receive additional float coats. Float wall with steel trowel and straight edges to form a plumb and true mortar surface. Allow the completed render coats to cure for 24 hours at 21°C prior to the installation of membrane or stone slip.

9.4 Skimming - Where skimming or shallow levelling coats are required in small areas, LATICRETE 254 Platinum Tile Adhesive can be used. Mix to a plastic consistency and apply to the surface with the straight edge of the trowel. Work in layers, nominally 2-3mm thick between coats. Scratch and allow to dry between coats.

9.5 See product data sheets, how to guides and technical data sheets for more complete information as required.

10.0 INSTALLATION OF ANTI FRACTURE OR WATERPROOF MEMBRANE:

Note: LATICRETE HYDRO BAN waterproof membrane is installed before stone slip is installed in areas; that are above occupied or enclosed areas; areas as specified and detailed on drawings; or areas requiring a crack isolation membrane. Install LATAPOXY Moisture Shield prior to the application of the LATICRETE HYDRO BAN where required. All CMU surfaces to be waterproofed shall be skim coated or rendered prior to the application of the membrane.

10.1 Before starting, surface to be covered shall be cleaned to remove soil, dust, curing compounds, form oil, sealants, or grease. Cleaning shall be by means of high-pressure washing of previously prepared or built surfaces. Ensure surface is dry as per the requirements stated on the product data sheet before application.

10.2 Surface to be waterproofed shall be plumb and true to the required tolerances and shall be dry and have a compact, flat wood float finish or open pored steel trowel finish.

10.3 Prior to the application, apply a liberal coat of LATPOXY Moisture Shield and allow to dry. Preferable apply HYDRO BAN within 24 hours of the Moisture Shield application. Stone may be installed directly over the membrane as soon as it is dry.

10.4 Allow membrane to cure fully. Cold weather installations will require a longer cure time.

10.5 See product data sheets, how to guides and technical data sheets for more complete information as required.

11.0 INSTALLATION OF STONE SLIP BY THE THIN BED METHOD:

11.1 The LATICRETE 254 Adhesive shall be applied with a notched trowel using a scraping motion to work the material into good contact with the surface to be covered. A trowel having notches of sufficient size to optimize bedding is recommended. Obtaining complete mortar coverage between the stone slip and the substrate (100%) is absolutely essential to the long-term performance of the installation. Using the appropriate notched trowel, along with proper trowelling techniques including back-buttering will make achieving complete coverage easier. To help ensure maximum coverage to both the substrate and to the back of the stone, mix the adhesive to a plastic and workable consistency. Do not allow the mortar to dry or skin over during the installation process.



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11.2 Only as much Adhesive shall be applied as can be covered while adhesive surface is still wet and tacky. After back buttering, the stone shall then be set in place manipulated to insure 100% full bedding (this means full contact of adhesive to stone & full contact of adhesive to substrate, especially at corners and edges) and a true surface. Check for required flatness. The stone shall be aligned to show uniform joints and then allowed to set until firm. Clean excess adhesive from face of the stone.

11.3 See product data sheets, how to guides and technical data sheets for more complete information as required.

12.0 EXPANSION, MOVEMENT AND CONTROL JOINTS:

12.1 Provide movement, control or expansion joints as located in the contract drawings and in full conformity, especially in width and depth, with architectural details, the stone slip manufacturer and AS3958.1&2.

- A. Substrate joints must carry through, full width to surface of the stone.
- B. Install movement joints in stone work over construction/cold joints or control joints in substrates.
- C. Install movement joints where stone abut restraining surfaces (such as perimeter walls, curbs, and columns), changes in plane and corners.
- D. Joint width and spacing depends on application – follow the stone slip manufacturer's recommendations.
- E. Joint width: $\geq 6\text{mm}$ and $\leq 15\text{mm}$.
- F. Layout joint pattern: 1:1 is optimal but must be $\leq 2:1$.
- G. Remove all contaminants and foreign material from joints void/surfaces such as dirt, dust, oil, water, setting material and the like. Install appropriate backing materials based on movement joint design or as specified. Follow sealant manufacturer's instructions.

Notes to specifier

The responsibility for calculating the actual spacing and size of the expansion joints shall be by the architect/engineer.

12.2 Seal movement joints with LATICRETE LATASIL and 9118 Primer. Use polyethylene backing rods and bond breaker tapes as required.

13.0 GROUTING AND POINTING JOINTS:

13.1 Joints shall be grouted or pointed with LATICRETE PERMACOLOR Grout.

13.2 Joints shall be packed full and free of all voids and pits. (Tool or rake as specified).

13.3 Certain types of stone are more absorbent than others and will trap colour or pigment during grouting. Prior to grouting, test for absorption of colour or pigment. Porous stone will need to be sealed prior to grouting.

13.4 Excess grout shall be cleaned from the surface with water and a damp sponge as the work progresses, while grout is fresh and before it hardens.

13.5 The day after installation grout film or haze shall be removed using a detergent solution.



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13.6 See product data sheets, how to guides and technical data sheets for more complete information as required.

14.0 PROTECTION & CLEANING:

14.1 During installation of the waterproof membrane, mortar beds, renders, stone adhesive and grout, the contractor shall take precautions to protect the work from rain, wetting, extreme temperatures and the like.

14.2 Allow a minimum of 24 hours for cure time at 21°C prior to exposing installations to construction traffic or loads. Full cure typically occurs in 7 days at 21°C.

14.3 Weather Note: The curing of; waterproof membranes, stone fixing adhesives and grouts, are retarded, by low temperatures and accelerated by high temperatures. Finished work should be protected for an extended period of time.

14.4 The contractor shall take precautions to protect the finished work from damage by other trades. Do not allow construction activity to affect fresh grout joints. Allow the grout to cure for a minimum of 7 days before steam cleaning or using aggressive cleaning techniques.

14.5 Clean excess mortar from stone surface with water before it hardens and as the work progresses. Do not contaminate open grout or movement joint voids while cleaning. Sponge and wash stone diagonally across joints. Do not use acids for cleaning. Polish with clean dry cloth. Remove surplus and leave premises broom clean.

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