General Tile Fixing Specification to Residential Installations.
Lifetime System Warranty.

This specification covers the installation of large format, ceramic tiles to residential floors and walls on masonry and framed backgrounds 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 relevant parties, in the presence of the builder, contractor, specifier, owner or any other persons deemed relevant, if 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 tile, in shock resistant, grouting and fixing materials, as specified herein and where indicated in drawings. Install thin, load bearing waterproof membranes, as specified and indicated in drawings if required.

NOTES TO SPECIFIER:
2.2 This is a total system. Call out products by name, number and application to ensure that specifications do not differ from manufacturer’s instructions.

2.3 The following shall be inserted in the Concrete Section:
"No sealers, crystalline waterproofing additives or curing compounds shall be used on concrete slabs which are to be covered with tile. Such slabs shall be covered and wet cured for a minimum of seven (7) days. Allow new concrete slabs to cure before the installation of tile or waterproof membrane. Areas that are to receive tile, installed by the thin bed method, shall have a wood float finish or open pored steel float finish, be true to within 3 mm in 3 m from the required plane and 1.5 mm in 600 mm when measured from the high spot. Areas requiring fill, patching or levelling shall be prepared / rendered / screeded using LATICRETE 3701 Mortar Admix / LATICRETE 226 Thick Bed Mortar, 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 tile. 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."

2.4 Tile and there, fixing and grouting mortars do not constitute a waterproof barrier. Specify & detail LATAPOXY Moisture Shield, where required; and LATICRETE Hydro Ban Liquid Applied Waterproof Membrane where a waterproof installation is required.

2.5 Surfaces must be structurally sound, stable and rigid enough to support ceramic/stone tile, thin brick and similar finishes. Substrate deflection under all live, dead and impact loads, including concentrated loads, must not exceed L/360 for thin bed ceramic tile installations where L = span length.

2.6 Consult LATICRETE for the installation of dimensionally unstable or moisture sensitive tile or stone. Consult LATICRETE for the installation requirements for stone or tile with proprietary backings.
2.7 Unless otherwise noted in this document, product data sheets, how to guides, technical data sheets and other LATICRETE guidelines, all work should be in accordance with AS3958.1 & 2.

2.8 This is not a master specification and may not include all the information required to complete the works. Contact LATICRETE for any additional information.

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

2.10 Follow all occupational health and safety and site safety procedures. Refer to the relevant msds for all safe handling information on the products nominated in this specification.

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

2.12 For the purpose of this specification, all tile is deemed to be not moisture sensitive, dimensionally stable, fit for purpose and suitable for the proposed application by the manufacturer/supplier. Contact LATICRETE if there is a backing on the tile.

2.13 Consult the cement backer board manufacturer for approval of use with this tiling system on an external facade.

2.14 For installations with the thin bed adhesives: the maximum allowable variation in the substrate is 3mm in 3m from the required plane and 1.5mm in 600mm when measured from the high points in the surface. Adjacent drywall sheets - edges shall not exceed 1mm difference in height.

2.15 Contact LATICRETE for a Custom Specification.

3.0 MATERIALS:

3.1 All tiles, where called for, shall be supplied by .................................................................

3.2 Skim & Slurry bond coats shall be LATICRETE 254 Platinum Adhesive.
Renders, Screeds & Concrete patching materials shall be: LATICRETE 3701/226 Latex Portland cement Mortar.
Waterproofing & crack suppression materials shall be: LATAPOXY Moisture Shield, where required and LATICRETE HYDRO BAN Waterproof Membrane.
Tile adhesives materials shall be: LATICRETE 254 Platinum Adhesive.
Tile grout materials shall be: LATICRETE SPECTRALOCK PRO Premium Grout.
Movement joint sealant shall be: LATICRETE LATASIL Sealant and LATASIL 9118 Primer.
Tile cleaner shall be: LATICRETE STONETECH KlenzAll Cleaner.

All waterproofing, renders & screed mortars, tile fixing and grouting materials shall be as provided by LATICRETE Australia Pty Ltd. 29 Telford Street, VIRGINIA, QLD 4014, Australia. Telephone: 1800331012. Email: technicalservice@laticrete.com.au Web: au.laticrete.com
Installation shall be in strict accordance with manufacturer’s instructions.

3.3 The bedding and grouting mortars shall be impact, shock, and chemical resistant.

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

3.5 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 The supplier of installation materials shall have been regularly engaged in the manufacture of these materials for a minimum of ten (10) years, and shall submit to the architect a list of three similar installations, each having a minimum of five (5) years’ service.

5.0 HANDLING AND STORAGE OF MATERIALS:

5.1 Handle and store tile in a manner to avoid contamination & intrusion of foreign matter that may inhibit bond.

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

5.3 The contractor shall take precautions to protect the Mortar Additives, membranes and other liquids from freezing or from excessive heat.

6.0 MORTAR, GROUT MIXES & WATERPROOF MEMBRANES:

6.1 Latex Cement Slurry Bond & Skim Coats:
20 kg LATICRETE 254 Platinum Adhesive.

6.2 Latex Cement Renders, Levelling’s and Scratch Coats:
8 x 20 kg bags LATICRETE 226 Thick Bed Mortar.
20 litre pail LATICRETE 3701 Mortar Admix. (Adjust quantity of liquid to obtain proper consistency)

6.3 Latex Cement Thick Bed Mortars and Screeds:
11 x 20 kg Bags LATICRETE 226 Thick Bed Mortar.
20 litre pail LATICRETE 3701 Mortar Admix. (Adjust quantity of liquid to obtain proper consistency)

6.4 Waterproof & Anti-Fracture Membrane:
15 litre pail LATICRETE HYDRO BAN Liquid Applied Waterproof Membrane.
20 litre unit LATAPOXY Moisture Shield.
600ml sausage HYDRO BAN Fillet & Sealant.

6.5 Latex Cement Adhesive:
20 kg bags LATICRETE 254 Platinum Adhesive.

6.6 Stain Resistant Grout:
Commercial Unit LATICRETE SPECTRALOCK PRO Premium Grout. (Select colour from LATICRETE grout chart)

6.7 Silicone Movement Joint Sealant:
305ml Tube LATICRETE LATASIL Sealant.
240ml Can LATICRETE LATASIL 9118 Primer.

6.8 Cleaners:
3.8 litre jug LATICRETE STONETECH KlenzAll Cleaner

7.0 PREPARATION & CLEANING:
7.1 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. Verify cement backer boards are suitable for the installation from the manufacturer.

7.2 As required, the concrete 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 concrete surface: to expose the fine aggregate; and to present with a sound, clean open pored surface, prior to installing render, waterproofing or adhesives. Out-of-plumb or uneven cement sheet surfaces should be; removed and replaced or if appropriate skimmed, flushed or made smooth with LATICRETE 254 Platinum.

7.3 As required the concrete or other substrate shall be cleaned 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 RENDERING, LEVELLING & MORTAR BEDS:

9.1 Render - LATICRETE 3701/226 Thick Bed Mortar, as a wall render is mixed to a wetter, plastic consistency. Carry any underlying movement joints to the surface.

9.2 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 tile.

9.3 Skimming - Where skimming or shallow levelling coats are required in small areas, LATICRETE 254 Platinum 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.

9.4 Mortar beds to floors - LATICRETE 3701/226 Thick Bed Mortars are normally applied from featheredge – 50mm thick and mixed to a semi-dry consistency and placed over a latex/cement slurry bond coat consisting of LATICRETE 254 Platinum Adhesive bond coat, levelled between screed boards and thoroughly compacted.

9.5 Before placing the mortar bed, apply the LATICRETE 254 bond coat nominally 2mm thick. Place the mortar bed while the slurry bond coat is still wet and tacky. Do not apply mortar bed over skinned or dried bond coat. Re apply bond coat if it has skinned or dried prior to applying mortar bed over.

9.6 See product data sheets, how to guides and technical data sheets for more complete information as required.
10.0 INSTALLATION OF WATERPROOF & CRACK SUPPRESSION MEMBRANE:

Note: Areas with high moisture vapour emission rates (MVER) or excessive dampness shall be treated with LATAPOXY Moisture Shield prior to the application of HYDRO BAN.

10.1 Before starting, surface to be covered shall be cleaned to remove soil, dust, curing compounds, form oil, sealants, or grease. Surface to be waterproofed shall be dry and have a compact, flat wood float finish.

10.2 Where required, apply a liberal application of LATAPOXY Moisture Shield, nominally 24 hours prior to the application of HYDRO BAN. Apply two coats of HYDRO BAN, allow drying between coats.

10.3 Tile may be installed directly over the membrane as soon as it is dry.

10.4 Flood test critical installations. Allow membrane to cure fully, usually 3 days at 21°C. 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 TILE BY THE THIN BED METHOD:

11.1 The appropriate LATICRETE 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. On site test should be carried out to determine the appropriate trowel size to target no voids in the adhesive bed, full bedding of the tile and complete adhesive distribution once the tiles are installed.

11.2 Only as much Adhesive shall be applied to the substrate as can be covered within 5 to 15 minutes or while adhesive surface is still wet and tacky. Prior to placing the glass tile, an amount of adhesive shall be applied evenly to the back of the entire tile. Tile shall then be set in place manipulated to insure 100% full bedding (this means full contact of adhesive to tile & full contact of adhesive to substrate) and a true surface. Tile shall be aligned to show uniform joints and then allowed to set until firm. Clean adhesive from the face of the tiles and joints whilst still fresh. Adhesive can be cleaned with a wet cloth or sponge.

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 Existing joints in subsurface must be carried through tile work and shall conform to architectural details.

12.2 Movement joints shall be installed where tile, screeds and renders abut restraining surfaces, such as perimeter walls, curbs, penetrations, columns, corners, etc. Expansion joints shall be installed at all "changes of plane" in the tile work, renders and screeds. Refer to Australian Standards AS3958.1 & 2 for more details.

12.3 Refer to architects & engineer’s drawings for full details on expansion, control, isolation or movement joints. (Do not tile, screed or render over construction joints).

Notes to specifier
The responsibility for calculating the actual spacing and size of the expansion joints shall be by the architect/engineer. The Optimum ratio of joint layout, length to width, is 1:1, and shall not be greater than 2:1.

12.4 Seal movement joints with LATICRETE LATASIL Silicone sealant and LATASIL 9118 primer where required. Movement joints are to be free of adhesive, debris and the like prior to application. 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 SPECTRALOCK PRO Premium Grout. Do not use on external facades. Contact LATICRETE.

13.2 Clean all joints of adhesive, dirt, tile mounting or anything that may inhibit a full joint. Ensure adhesive and bedding layers are dry prior to grouting.

13.3 Certain types of tile are more absorbent than others and will trap colour or pigment during grouting. Prior to grouting, test for absorption of colour or pigment. Porous tiles will need to be pre-sealed with a STONETECH grout release prior to grouting.

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

13.5 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.

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

13.7 See product data sheets, how to guides and technical data sheets for more complete

14.0 PROTECTION:

14.1 During installation of the waterproof membrane, screeds, renders, tiling and grouting the contractor shall take precautions to protect the work from varying adverse weather conditions.

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

14.3 Allow tile work to cure. Cold Weather Note: The curing of; waterproof membranes, tile fixing adhesives and grouts, are retarded, by low temperatures. Finished work should be protected for an extended period of time.

15 CLEANING & SURFACE SEALING.

15.1 The tiles on this project shall be cleaned and sealed with LATICRETE STONETECH Sealers and Cleaners as appropriate for the specific tile installation.

15.2 Consult the product data sheet and technical guides prior to use. For further information contact stonetech@lasticrete.com.au Test prior to use in a small unobtrusive area.
Bonded system including mortar bed on concrete

LATICRETE® SPECTRALOCK® PRO Premium Grout

Ceramic Tile

LATICRETE 254 Platinum Adhesive

HYDRO BAN® Membrane

LATAPOXY® Moisture Shield

LATICRETE 3701 Mortar Admix Gauged with 226 Thick Bed Mortar

LATICRETE 254 Platinum Slurry Bond Coat

Concrete
Ceramic Tile Shower Puddle Flange Informative Detail

- Stud Frame
- Backer Board
- LATICRETE HYDRO BAN Membrane
- LATICRETE 254 Platinum Adhesive
- Ceramic Tile
- SPECTRALOCK PRO Premium Grout
- LATICRETE LATASIL Sealant
- LATAPOXY Moisture Shield
- 3701/226 Screed
- 254 Platinum Slurry Bond Coat
- Concrete
- HYDRO BAN Fillet & Sealant
- Puddle Flange Drain

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