

### Installation of Sketch Australia Natural Stone Sheet Panels Internal and external areas.

This recommendation is regarding the application of the Sketch Australia Natural Stone Sheet coverings for non-immersed wall and floor installations. The substrates included are reinforced concrete floors, sheet wall linings and rendered masonry walls. For suitability of applications over alternate substrates, contact ARDEX Technical Services Department to discuss.

### PREPARATION

**ARDEX Technical Bulletin TB058** describes the different preparation methods that can be used to remove all contaminants and weak surfaces from concrete substrates to achieve a clean surface with profile to CSP3 standard.

Remove by mechanical means (e.g. grinding or scabbling) all existing floor finishes, and/or surface contaminants (such as laitance and/or curing compounds) and any applied waterproofing membranes to fully expose the existing concrete structural substrate. New trowel finished concrete should also be prepared to achieve a fine profiled & open pored surface free of all contaminants.

Where membranes are required, ensure all floor surfaces and adjacent masonry walls where the membrane will be turned up in accordance with the recommendations of AS4654.2 are prepared in this manner.

Coatings on walls must be removed and exposed wall boards wiped to remove loose particles. Vacuum to remove all dust prior to proceeding. Cracks in any concrete substrates may be repaired. These repairs are best completed and then the surface ground flat to achieve the smooth surface for the membrane application.

Concrete repairs to be done using Ardex concrete repair epoxies and mortars – Suitable Ardex products to be recommended as scope of repairs is known after demolition phase.

For further information on individual substrates and substrate specifications it is recommended to contact Sketch Australia on 1300 632 166 or the ARDEX Australia Technical Services Department.

### MOISTURE BARRIER

In situations where rising damp is suspected or known, a moisture barrier is required. The following systems can be applied as the moisture barrier to prevent residual moisture rising in porous substrates.

• ARDEX WPM 300 HydrEpoxy applied in two coats at 3 m<sup>2</sup> per litre per coat and allowing at least 4 hours drying between coats. Immediately after the topcoat is applied, ARDEX Primer Sand is broadcast over the entire wet surface. Total





DFT for the two coats will be 0.3mm. Allow to dry (~24 hours) before brushing/vacuuming to remove any loose sand prior to installing cement based tile adhesives. Recommended for heavily saturated new concrete substrates.

 ARDEX WPM 368 One-part moisture barrier applied in two coats at 3 m<sup>2</sup> per litre per coat and allowing 2 - 4 hours between coats. Allow to dry for 24 hours although longer drying times may be required if applied to saturated substrates. Sand seeding is not required. Total DFT for the two coats will be 0.3mm. Once dry install the cement based tile adhesive.

The above moisture barriers also act as the prime coat for ARDEX levelling compounds and must be dry prior to the installation of these levelling cements. If levelling compounds are required prior to installation of the Sketch Australia sheet systems, please contact ARDEX Technical Services for suitable systems.

#### Priming

Where no moisture barrier has been applied. Where the moisture content of the substrate has been determined as being dry (according to AS1884-2012 Appendix A), the prepared surface is primed with **ARDEX Multiprime**. This can also be utilised as the primer for Plasterboard or Fibre Cement Sheet substrates.

### WATERPROOFING (WHERE REQUIRED)

The membrane application is to be in accordance with the recommendations of AS3740 and as follows.

- Prime the substrate according to guidelines set out above.
- Apply the ARDEX WPM 155 single component membrane, in accordance with the instructions and apply in 2 coats to achieve the recommended minimum thicknesses for floors and walls. This membrane may be applied to full height (~1800mm above floor) in shower recesses.
- The membrane application shall include the **ARDEX ST** neutral cure silicone bond breakers to internal corners and **ARDEX Deckweb** fabric reinforcement where the membrane is applied over these bond breakers.
- Let the membrane fully dry for 24 hours prior to installation of the vinyl finishes.

Note: Where a membrane has been applied and a non-cementitious adhesive is to be applied, the dry membrane surface shall receive a thin smoothing coat of the porous **ARDEX Feather Finish**. This porous layer assists in the setting of water-based vinyl adhesives while protecting the membrane from the solvents in solvent-based contact adhesives.

Apply **ARDEX Feather Finish** in two coats as follows:

• The first coat is applied with a notched trowel to achieve the recommended minimum thickness for floors and walls. Smooth the notches together to achieve a flat surface. This will dry in approx.15 minutes.





• Apply a second coat to achieve a smooth finish at a minimum overall thickness of 1.5mm on floors and 1.0mm on walls. The **ARDEX Feather Finish** can be applied to an overall max. 3.0mm thickness down to a true feather edge and will dry in approx. 15 minutes.

### ADHESIVE FIXING OF SKETCH AUSTRALIA STONE SHEETS

Panels should be prepared in conjunction with Sketch Australia handling guidelines. Panels should be inspected for any contamination and the rear surface cleaned free of any release agents. For high stress applications such as wet areas, additional sanding of the dense backing can increase tensile performance for cementitious tile adhesives.

Suitable adhesive for bonding the Sketch sheets include:

### ARDEX AF180MS - One-Component Heavy Duty Adhesive:

Applied by V-notch trowel over absorbent floor substrates only.

**ARDEX AF 180 MS** should be applied evenly to the suitably prepared substrate using the appropriate serrated A2 trowel, held approximately at a 60 degree angle to the subfloor, to maximise coverage and avoid forming pools of adhesive. Floor coverings should be applied directly into the wet adhesive on absorbent backgrounds after the airing time, between 5-20 minutes depending on ambient conditions. Allowing the adhesive to air will improve early stage grab. Only apply sufficient adhesive that can be covered within the working time, usually 35 minutes. Periodically check that the adhesive has transferred to the rear of the floor covering. A vinyl roller should be used to press the sheet into place to eliminate air pockets behind the sheets and maximize contact coverage.

Note: Feather Finish can be applied as an absorbent intermediate layer if the substrate is a waterproof membrane.

#### ARDEX RA040 - One Component, Polyurethane Based Joint Sealant:

Applied by square-notch or V-notch trowel over wall substrates.

**ARDEX RA040** should be applied evenly to the suitably prepared substrate using a 3-4mm notched trowel.

Sheets shall be pressed into the freshly applied polyurethane by use of a vinyl roller or rubber grout float to collapse adhesive notches and maximize coverage.

#### ARDEX Optima - Two Part Premium Tile Adhesive:

Applied by square-notch trowel for wall and floor substrates, preferred option for wet areas.

**ARDEX Optima** should be applied evenly to the suitably prepared substrate using a 3-4mm notched trowel.





Sheets shall be pressed into the freshly applied polyurethane by use of a vinyl roller or rubber grout float to collapse adhesive notches and maximize coverage.

#### **ARDEX CA20P - Multipurpose Construction Adhesive:**

Applied by square-notch trowel for wall substrates.

**ARDEX CA20P** should be applied evenly to the suitably prepared substrate using a 3-4mm notched trowel. The material can be caulked out onto the substrate prior to notch trowel application.

Sheets shall be pressed into the freshly applied polyurethane by use of a vinyl roller or rubber grout float to collapse adhesive notches and maximize coverage.

#### Grouting

After installation, wait a minimum of 24 hours before grouting joints. Grouting can be performed using **ARDEX ST** Neutral Cure Silicone or ARDEX FSDD (where grout joints are kept to less than 4mm). Where **ARDEX FSDD** is used, it is recommended to use a 50:50 mix or **ARDEX Grout Booster** as the mixing water for improved performance.

Joint grouting using traditional sanded grouts is not recommended as this may lead to surface abrasions of the Sketch Australia Sheets. In areas subject to moisture or movement, ARDEX recommends a minimum joint width of 2 mm.

All ARDEX products shall be mixed and used in accordance with the product data sheets.

It is recommended that Sketch Australia is contacted regarding panel choice for floor applications or wet areas as their appropriateness may require the application of protective sealers for additional protection.

#### Disclaimer:

The recommendation selected is based upon questions answered on the ARDEX Australia website. This recommendation is designed as a general application for your described situation and should not be considered site specific documentation for general distribution. Always consult the latest relevant ARDEX Technical Bulletins and information on the product packaging and/or product data sheets (available on the ARDEX Website). Australian and other relevant standards should be followed during installation. If you have any further questions or would like further clarification, please contact the ARDEX Technical Services Hotline on 1800 224 070 (9am to 5pm Monday to Friday).





