

# TECHNICAL BULLETIN – TB002a

## INSTALLATION OF CULTURED STONE

10<sup>TH</sup> SEPTEMBER 2020

### INTRODUCTION & SCOPE

In conjunction with this document reference should also be made to the Ardex Technical Bulletin covering the installation of large format tiles (Ardex Technical Bulletin TB001).

“Cultured Stone” is generally a large format cladding consisting of a cementitious blend manufactured to simulate a stone finish. While the product is lighter than natural stone it remains relatively heavy particularly because of the bulk thickness.

### LIMITATIONS

Limitations of installing “Cultured Stone” with Ardex adhesives include:

- i. Ardex warranty provisions exclude any failures resulting from the dimensional stability of the stone when exposed to the service environment.
- ii. Moisture expansion of the stone must comply with BS6431.
- iii. The weight of each tile/stone shall not exceed 4kg or the maximum load capacity of the substrate whichever is the lower. Reference must be made to Table 1 of ARDEX Technical Bulletin TB001 for substrate loading capacity.
- iv. Reliance on bonding strength of the adhesive alone is only recommended to a maximum height of 2 metres. Above 2 metres mechanical fixing and/or support should also be employed.

### SURFACE PREPARATION

All surfaces to which the stone is to be bonded shall be structurally sound and of sufficient intrinsic strength to support the weight of the tile/stone.

All surfaces shall be true to plane.

All surfaces must be dry and free from all grease, oil, dirt, loose materials and other surface contaminants prior to installation.

### GENERAL CONDITIONS

All installations shall be in conformance with AS3958.1 – 2007.

Movement joints shall be incorporated around the perimeter of the installation and at 4 metre intervals in a grid pattern.

Special care should be taken during installation to avoid skinning of the adhesive before the placement of the tile/stone. This is particularly critical for external large format stone/tile cladding.

### **WATERPROOFING PRIOR TO INSTALLATION**

If the surface needs to be waterproofed prior to installation of the tile/stone ARDEX WPM 002 (Superflex Bathroom and Balcony Two Part) is recommended to provide greater intrinsic strength properties. The waterproof membrane should be applied in accordance with Ardex recommendations included in the relevant Product Data Sheet.

### **SUITABLE ADHESIVES**

Suitable adhesives for bonding “Cultured Stone” include:

ARDEX X77 mixed with ARDEX E90 (2.5 L of E90 with 5.0-5.5 L water).

ARDEX Optima (mixed 3:1 by weight)

ARDURIT X7 with ARDEX E90 (3.6 L E90 plus 3.5 L water per 20kg)

### **INSTALLATION OF “CULTURED STONE”**

If installing over a porous surface prime surfaces with ARDEX WPM 265 water based primer for internal applications or ARDEX WPM 270 solvent based primer for external applications at a coverage rate of 5 square metres per litre. Allow the primer to dry, normally about 30 minutes, before applying the adhesive.

“Cultured Stone” has a very rough surface profile on the bonding side and the adhesive application is therefore a two stage process:

- a. Apply the adhesive to a small area not exceeding 1 square metre using a 10mm notched trowel. It is critical that the adhesive not be allowed to skin before installing the tile/stone.
- b. Butter the reverse side of the “Cultured Stone” with adhesive.

Press the tile/stone into place and work into the adhesive to ensure full adhesive contact.

Allow the adhesive to dry thoroughly before grouting the surface with ARDEX FG8 or ARDEX Wide Joint grout in accordance with the Product Data Sheets.

### **AFTER INSTALLATION PROTECTION**

Once the tile/stone has been installed adequate physical support and protection from the weather should be provided during the full curing process of the adhesive.

**IMPORTANT**

This Technical Bulletin provides guideline information only and is not intended to be interpreted as a general specification for the application/installation of the products described. Since each project potentially differs in exposure/condition specific recommendations may vary from the information contained herein. For recommendations for specific applications/installations contact your nearest Ardex Australia or Ardex New Zealand Office.

**DISCLAIMER**

The information presented in this Technical Bulletin is to the best of our knowledge true and accurate. No warranty is implied or given as to its completeness or accuracy in describing the performance or suitability of a product for a particular application. Users are asked to check that the literature in their possession is the latest issue.

**REASON FOR REVISION – ISSUER**

PERIODIC UPDATE

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