

## **Natural Stone Adhesive**

Ideal for uncalibrated or moisture sensitive natural stone tiles - reduced risk of water staining

Ideal for large format tiles and heavy stone applications

Multi-purpose - can be used with adhesive bed thickness of 3mm - 30mm in one application



**ARDEX New Zealand Ltd** 

15 Alfred Street, Onehunga Auckland, New Zealand 1061 Phone: 0800 227 339 Email: info@ardexnz.com ardex.co.nz

### **Natural Stone Adhesive**

### **DESCRIPTION**

ARDEX X32 natural stone adhesive is a rapid hardening and drying, cement based adhesive for fixing natural stone floor and wall tiles including moisture sensitive natural stone tiles and uncalibrated natural stone floor tiles. It can also be used on concrete slabs and ceramic tiles including porcelain tiles in internal and external situations and as a skimming mortar coat to repair uneven surfaces prior to tiling.

ARDEX X32 is suitable for use in situations where: The adhesive bed has to dry quickly to reduce the risk of moisture staining of the stone.

Tiles fixed with ARDEX X32 can be grouted and subjected to foot traffic 3 hours after fixing at 23°C and 50% relative humidity, even at maximum thickness - 30mm.

Large format tile installations that require effort to achieve wet bed transfer adequately to AS 3958 or dense stone which can extend adhesive drying times.

### FOR FIXING (TILE TYPES)

Fully vitrified and ceramic tiles, porcelain, concrete stone tiles e.g. terrazzo, natural stones\*, glass and porcelain mosaics.

\*ARDEX X32 can be used for fixing low to medium dimensionally sensitive stone. For details please refer to Technical Bulletin TB010 – Fixing of Moisture Sensitive Stone/Marble.

ARDEX X32 for translucent tiles, glass, mosaics, limestone, travertine, marble and other natural stone.

### TO (SUBSTRATES)

- Concrete, renders, screeds
- Medium density fibre-cement sheets Plasterboard
- Existing ceramic tiles (dry internal areas only)
- Autoclaved aerated concrete (AAC)
- Compressed fibre-cement sheet on floors (with ARDEX E90)
- Heated Floors

### SUBSTRATE PREPARATION

The surface being adhered to must be clean, firm and free of dust, dirt, oil, grease, curing compounds, release agents, contaminants, and other barrier materials, as well as being strong enough to support the weight of the tiles being fixed.

ARDEX X32 can be applied to dry or moist surfaces, e.g cement/sand, concrete etc, but moisture sensitive materials must be dry and remain dry after fixing.

Ensure that the substrate's required drying time, as given in the relevant part of AS 3958, is allowed to elapse prior to fixing the tiles. Prime porous substrates with ARDEX Multiprime.

### CONCRETE

This includes precast, in-situ and wood floated concrete. As concrete exhibits drying shrinkage, allow to cure for at least 4 weeks prior to tiling. Any surface laitance, concrete sealers, curing compounds, contaminants, and other materials should be removed from the surface prior to tiling. Steel trowel finished concrete should be roughened mechanically to remove laitance and provide a good key for tiling. The surface should be true and level.

The concrete should have adequate surface profile (e.g. broom finish) to provide a mechanical key. Smooth surfaces and/or dense concrete greater than 35 MPa must be mechanically prepared prior to tiling.

### CEMENT RENDER/SCREEDS

New renders and screeds should be finished with a wood float to the required surface regularity. Screeds should have falls to drains where required.

### Plasterboard/Fibre-cement Sheet

Tiles can be fixed directly provided these boards are firmly and rigidly fixed in accordance with manufacturer's instructions to adequately support the tile. Priming is recommended for fibre-cement sheet but is not usually necessary for plasterboard except when jointing compound is used.

### **EXISTING CERAMIC TILES**

These include sound, clean, glazed and unglazed tiles. Existing tiles must be firm and stable. Roughen the surface by mechanical means, clean off contamination and dust before tiling. Ensure that at least 80% of the glaze is removed. Tiling over existing tiles is not recommended in immersed applications. Prime with ARDEX Multiprime or ARDEX P9.

### **MIXING**

ARDEX X32 Natural Stone Adhesive powder is added to clean water in a large clean container whilst stirring vigorously with a paddle mixer. Mix thoroughly to give a lump free easily worked mortar of a thick creamy consistency. Mix for at least 2 minutes.

Note: Do not add additional water and ensure that you have mixed for at least 2 minutes.

ARDEX X32 can be mixed to suit the application. Floors: Mix 20kg powder with 7.2 litres water. Walls: Mix 20kg powder with 6.4 litres water.

When using ARDEX E90 admix, first dilute the admix 1:2 with water.

Note: Do not mix more than can be used within the working time of 30 minutes. The working time and strength development will be retarded at lower temperatures and accelerated at high. Do not apply at temperatures below 10°C or above 35°C

### **FIXING TECHNIQUE**

Before fixing, ensure the substrate has been prepared and the tiles are free from dust. Tiles should be fixed in accordance with Australian Standard AS 3958.

Substrate surface, type and size of the tiles will determine the selection of the trowel. Refer to AS 3958 for the trowel size guidance depending on nominal tile size. Or refer to AS 3958 Table 5.6.2.2 - Trowel size guidance depending on nominal tile size.

The tiles must be pressed firmly into the freshly combed mortar bed to ensure good contact with the mortar. Slide the tile at right angles to the notch pattern to ensure contact

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requirement is in accordance with AS3958 - 21. Tiles with ribbed or keyed back profiles, large format tiles (400mm in either direction), should also be back buttered to ensure complete coverage. Lift a tile from time to time to check that there are no voids beneath the tile. Do not spot fix. Any surplus adhesive must be removed from the surface of the tile and joints, before the adhesive sets.

ARDEX X32 has an open time of 30 minutes and adjustment time of 20 minutes and can be applied at a bed thickness of between 3 - 30mm.

The area covered with ARDEX X32 should be limited so that tiles can be fixed within the open time. If the mortar is applied immediately after mixing, the open time is approximately 20 minutes but this time will be greatly reduced if the mixed mortar is left longer before applying.

On particular rough or uneven floor or wall surfaces it is advisable to pre-level the surface with ARDEX X32 Natural Stone Adhesive mortar and once the initial layer has hardened, (approximately 3 hours after application) proceed with the normal fixing technique.

Holes and depressions can be pre-filled and substrates levelled provided that the substrate is sufficiently strong and the total thickness of adhesive and pre-levelling mortar does not exceed 30mm.

Please be aware of site conditions when considering these times and only spread enough adhesive so that the tiles can be fixed while the mortar is still wet. All tools should be cleaned with water immediately after use.

### **MOVEMENT JOINTS**

Movement joints must be in accordance with Australian Standard AS 3958.

### **GROUTING**

Grouting can proceed once the tile bed is sufficiently firm, usually 3 hours after fixing at 23°C and 50% relative humidity. Allow longer for dense tiles/substrates, humid climates and low temperatures. The tile joints should be grouted with the appropriate ARDEX grout.

### **COVERAGE**

A 20kg of ARDEX X32 will cover approximately 5.5m<sup>2</sup> with a solid 3mm adhesive bed. The coverage will vary depending on substrate condition, tile type and application technique.

### **PACKAGING**

ARDEX X32 Natural Stone Adhesive is packed in polylined paper bags – net weight 20kg.

### **SHELF LIFE**

ARDEX X32 has a shelf life of 12 months when stored in the original unopened packaging in a dry place at 23°C and 50% relative humidity.

Pay attention to the following

 Do not use ARDEX X32 in continuous immersion applications e.g. swimming pools, tanks etc. ARDEX provides other systems  Before any substrate preparation, installation or finishing methods relating to ARDEX product are undertaken, please be aware of any potential risks and use appropriate PPE (personal protective equipment). This may involve contacting substrate manufacturers for Safety Data Sheets.

#### **SAFETY DATA**

This product causes skin irritation and may cause an allergic skin reaction. It may cause respiratory irritation and causes serious eye damage. In case of contact with the eyes rinse with running water until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. It may cause damage to organs through prolonged or repeated exposure and suspected of causing genetic defects. Wear protective gloves, clothing, eye and face protection. Avoid inhaling dust/fumes. Ensure adequate ventilation during mixing and application. Store locked up. Check with your local Council regarding the disposal of contents, dispose of packaging thoughtfully. Keep out of the reach of children. Call the Poisons Information Centre on 131 126 (AUS) and 0800 764 766 (NZ) or call a doctor if you feel unwell. Additional information is in the Safety Data Sheet (SDS) at ardexaustralia.com

TECHNICAL PROPERTIES	
Colour	White
	Floors: 7.2 litres Walls: 6.4 litres

APPLICATION PROPERTIES AT 23°C AND 50% RH	
Open Time	30 mins
Adjustment Time	20 - 30 mins
Grouting Time	3 hours
Pot Life	60 mins
Sagging	None
Underfloor Heating	Yes

MECHANICAL PROPERTIES (ISO 13007) Tensile Adhesion Strength after		
28 Days Dry	≥1.0 MPa	
Water Immersion	≥1.0 MPa	
Heat	≥1.0 MPa	
Freeze Thaw	≥1.0 MPa	
Classification	C2 TE S1	

### **Natural Stone Adhesive**

### **GUARANTEE**

ARDEX Australia Pty Ltd ("we" or "us") guarantees this product ("our goods") is free from manufacturing defects and will perform to any applicable specification published by us for 10 years from the date of purchase. Our liability under this guarantee is limited at our option to replacement of the product, repair of any damage to the immediate surface or area of application of the product, or compensation, in each case if we are satisfied loss or damage was due to a breach of this guarantee. This guarantee does not apply if damage or loss is due to failure to follow published instructions or any act or circumstance beyond our control, including shade variations and efflorescence. If you wish to make a claim under this guarantee you must notify us (ARDEX Australia Pty Ltd, 2 Buda Way Kemps Creek NSW 2178; Toll Free: 1800 224 070; Email: technicalservices@ ardexaustralia.com) and provide evidence of your purchase of the product within 30 days of any alleged loss or damage occurring. We reserve the right to ask you for satisfactory evidence of any alleged loss or damage. Any claim under this guarantee is at your cost. This guarantee is in addition to any rights or remedies you may have as a "consumer" under the Australian Consumer Law and to that extent you need to be aware that: "Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss of damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure".

### **DISCLAIMER**

The technical details, recommendations and other information contained in this data sheet are given in good faith and represent the best of our knowledge and experience at the time of printing. It is your responsibility to ensure that our products are used and handled correctly and in accordance with any applicable Australian Standards. Our instructions and recommendations are only for the uses they are intended. Users are advised to confirm that this product is suitable for their application and conforms with the specifications of the system. We also reserve the right to update information without prior notice to you to reflect our ongoing research and development program. Country specific recommendations, depending on local standards, codes of practice, building regulations or industry guidelines, may affect specific installation recommendations. The supply of our products and services is also subject to certain terms, warranties and exclusions, which may have already been disclosed to you in prior dealings or are otherwise available to you on request. You should make yourself familiar with them.

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