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PRODUCT DATA SHEET

# ARDEX X 32

## Natural Stone Adhesive



### Features

- Ideal for uncalibrated or moisture sensitive natural stone tiles – reduced risk of water staining
- Can be walked on and grouted 3 hours after fixing
- Multi-purpose - can be used with adhesive bed thicknesses from 3mm up to 30mm
- Suitable for use on heated sub-floors
- Can be used for pre-smoothing floors and walls prior to tiling
- For internal and external locations
- For use on walls and floors

**RAPIDRY** What is the  
Rapidry Formula?



**FORMULA** It is the ability of the mortar to totally bind the water used for mixing, virtually eliminating the risk of water staining.



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# ARDEX X 32

## Natural Stone Adhesive

### DESCRIPTION

ARDEX X32 Natural Stone Adhesive is classified as C2 FTE S1 "Improved deformable fast setting cementitious adhesive with reduced slip and extended open time" in accordance with BS EN 12004. ARDEX X32 Natural Stone Adhesive is a special rapid hardening and drying, white cement-based adhesive for fixing natural stone floor and wall tiles including moisture sensitive natural stone tiles and uncalibrated natural stone floor tiles. It may also be used for concrete slabs and ceramic tiles including porcelain tiles in internal and external situations.

Tiles fixed with ARDEX X32 Natural Stone Adhesive can be grouted and subjected to foot traffic 3 hours after fixing at normal temperatures (20°C), even at maximum thickness.

It is particularly suitable for use in situations where the adhesive bed has to dry quickly to reduce the risk of moisture staining of the stone. ARDEX X32 Natural Stone Adhesive is a white powder based on special cements, high quality synthetic resins and fillers, which is mixed with water to produce an easily applied mortar with a working time of approximately 60 minutes. The mortar adheres strongly to most building materials such as concrete, cement/sand render and screeds, brickwork, blockwork, etc. In some cases surface preparation, such as priming may be required prior to fixing. For asphalt floors consult the "Fixing Ceramic Tiles to Internal Asphalt Floors" data sheet.

### SURFACE PREPARATION

The surface being adhered to must be clean, firm, free of dust, dirt, oil, grease and other barrier materials as well as being strong enough to support the weight of the tiles being fixed. Ensure that the drying time for the background, as recommended in the relevant part of BS 5385, has elapsed prior to fixing the tiles. ARDEX X32 Natural Stone Adhesive 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. Screeds and wall plasters based on calcium sulfate, e.g. anhydrite/hemihydrate screeds, should be dry and the surface suitably prepared before priming with ARDEX P 51 primer, diluted 1 part to 3 parts water **NOTE:** The surface of calcium sulfate based screeds should be prepared in accordance with the screed manufacturer's instructions. The adhesive bed should not exceed 6mm on calcium sulphate based screeds. When fixing to very smooth, dense and impervious surfaces, such as existing ceramic floor tiles (glazed or unglazed), terrazzo etc., the surface should be initially primed with ARDEX P 82 or P 4 primer, for internal dry areas.

### ARDEX P 4

Solvent free, ready mixed rapid drying primer used prior to the application of ceramic tile adhesives and levelling compounds. ARDEX P 4 Primer produces a textured surface and dries in as little as 30 minutes, it is particularly useful for tile on tile applications.

### MIXING

ARDEX X32 Natural Stone Adhesive powder is added to clean water in a clean mixing container whilst stirring and mixed thoroughly to give an easily worked mortar. The use of an ARDEX mixing paddle with a 10mm chuck, variable speed electric drill makes light work of mixing.

The mix proportions by bag are:  
For bedding floor tiles approximately 7.2 litres of water per 20kg ARDEX X32 Natural Stone Adhesive and approximately 6.4 litres of water per 20kg ARDEX X32 for wall tiling.  
The equivalent mix by volume is approximately 1 part of water to 2½ parts of ARDEX X32 Natural Stone Adhesive powder for floors and 1 part water to 2¾ parts powder for walls.

The mortar is immediately ready for use and has a working time of approximately 60 minutes at a temperature of 20°C.

**NOTE:** Do not mix more than can be used within this time. The working time and strength development will be retarded at lower and accelerated at higher temperatures. Do not apply at temperatures below 5°C.

### FIXING TECHNIQUES

For fixing natural stone tiles, use a suitably sized notched trowel to give a ribbed mortar bed on the substrate, into which the tiles are firmly bedded whilst the mortar is moist and soft. Floor tiles, slabs with keyed back profiles and translucent stones need to be buttered to ensure solid bedding. The area covered with ARDEX X32 Natural Stone Adhesive mortar 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.

ARDEX X32 is classified as having an extended open time of no less than 30 minutes when measured in accordance with BS EN 12004. For optimum performance under typical UK site conditions tiles should be fixed within 20 minutes.

On particularly rough or uneven floor or wall surfaces it is advisable to pre-level the surface with ARDEX X32 Natural Stone Adhesive mortar and once this 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 providing that the substrate is sufficiently strong and the total thickness of adhesive and pre-levelling mortar does not exceed 30mm.

When fixing either stone tiles on gypsum wall plaster where the weight of the stone tiling is restricted to 20kg per square metre, or where an adhesive bed 3mm or less in thickness is required, or when fixing translucent natural stone tiles, ARDEX S16W or ARDEX S27W should be used.

### GROUTING

Natural stone tiles and slabs fixed in ARDEX X32 Natural Stone Adhesive may be grouted as soon as the tile bed is sufficiently firm, usually 3 hours after fixing at 20°C.

ARDEX MG Rapid Drying Marble and Natural Stone Grout should be used to grout marble and other natural stone slabs that are sensitive to moisture for internal areas. For external areas use ARDEX-FLEX FL or ARDEX-FLEX FS.

### COVERAGE

Approximately 1.2 kg of ARDEX X32 Natural Stone Adhesive powder per square metre per mm bed thickness.

A 20kg bag of ARDEX X32 Natural Stone Adhesive will cover approximately 5.5m<sup>2</sup> with a solid 3mm adhesive bed.

### PACKAGING

ARDEX X32 Natural Stone Adhesive is packed in paper sacks incorporating a polyethylene liner – net weight 20kg.

### STORAGE AND SHELF LIFE

ARDEX X32 Natural Stone Adhesive must be stored in unopened packaging, clear of the ground in cool dry conditions and be protected from excessive draught. If stored correctly, as detailed above, the shelf life of this product is 12 months from the date shown on the packaging.

**NOTE:** For the latest technical or health and safety data on this product, please consult the current technical or health and safety data sheet online at [www.ardex.co.uk](http://www.ardex.co.uk)

### TECHNICAL DATA

Bulk density of powder:	approximately 1.1kg/ltr
Weight of fresh mortar:	approximately 1.6kg/ltr
Material requirement:	approximately 1.2kg powder per m <sup>2</sup> per mm
Working time (20°C):	approximately 60 minutes
Fixing time:	approximately 20 minutes (using freshly mixed mortar)
Adjusting time:	approximately 20 – 30 minutes
Walkability (20°C)	After approximately 3 hours; then grouting is possible

### Compressive strength:

After 1 day	approximately 10 N/mm <sup>2</sup>
After 7 days	approximately 15 N/mm <sup>2</sup>
After 28 days	approximately 20 N/mm <sup>2</sup>

### Tensile bending strength:

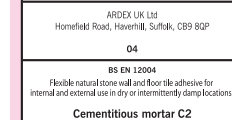
After 1 day	approximately 2.5 N/mm <sup>2</sup>
After 7 days	approximately 4.0 N/mm <sup>2</sup>
After 28 days	approximately 6.0 N/mm <sup>2</sup>

Suitable for underfloor heating: Yes

### PROPERTIES TESTED TO THE REQUIREMENTS OF BS EN 12004

**Tensile Adhesion Strength:** Greater than 1.0 N/mm<sup>2</sup> under all test conditions

**Extended Open Time:** More than 0.5 N/mm<sup>2</sup> adhesion achieved after not less than 30 minutes



Slip less than 0.5mm

**NOTE:** The information supplied in our literature or given by our employees is based upon extensive experience and, together with that supplied by our agents or distributors, is given in good faith in order to help you. Our Company policy is one of continuous Research and Development; we therefore reserve the right to update this information at any time without prior notice. We also guarantee the consistent high quality of our products; however, as we have no control over site conditions or the execution of the work, we accept no liability for any loss or damage which may arise as a result thereof.

Country specific recommendations, depending on local standards, codes of practice, building regulations or industry guidelines, may affect specific installation recommendations.

**TECHNICAL ADVICE HELPLINE:**  
01440 714939  
ARDEX online: [www.ardex.co.uk](http://www.ardex.co.uk)