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PRODUCT DATA SHEET

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# ARDEX X7R

# ARDEX X7RW

## Rapid Setting Flexible Adhesive for Floor and Wall Tiling

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### Features

Walk on and grout after 2 hours

Enhanced adhesion and flexibility

Ideal for all tile types including fully vitrified, porcelain, mosaics and terrazzo

Ideal for swimming pools and wet areas

Excellent slump resistance and application properties

For internal and external applications

Suitable for underfloor heating

Available in grey or white

Suitable for wall and floor tiling

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# ARDEX X 7 R / ARDEX X 7 R W

## Rapid Setting Flexible Adhesive for Floor and Wall Tiling

### DESCRIPTION

ARDEX X 7 R rapid setting cement-based floor and wall tile adhesive will allow grouting to commence after 2 hours at 20°C. It is specifically formulated to have enhanced properties of adhesion and flexibility ideal for fixing fully vitrified or porcelain tiles and other tiles with low porosity as well as glass and porcelain mosaics, terrazzo and brick slips without the need of an admixture.

The BS EN 12004 C2 FT designation for ARDEX X 7 R classifies the adhesive as an 'improved fast setting cementitious adhesive with additional characteristics and reduced slip'. EN 12004 specifies that a rapid setting adhesive must achieve at least 0.5N/mm<sup>2</sup> at 24 hours. The additional characteristics for ARDEX X 7 R determined in accordance with BS EN 12004 are a tensile adhesion strength of greater than 1 N/mm<sup>2</sup> adhesion value, greater than 1 N/mm<sup>2</sup> after water immersion, greater than 1 N/mm<sup>2</sup> after heat aging and greater than 1 N/mm<sup>2</sup> after freeze thaw cycling, making this product suitable for internal and external situations, including swimming pools. The mixed mortar has a slump free consistency with high initial grab enabling heavy wall tiles to be fixed thus reducing or dispensing with the need for battens and spacers. ARDEX X 7 R adheres strongly to most construction materials such as concrete, cement and sand renders and screeds, heated sub-floors, brickwork and blockwork, gypsum plaster, anhydrite screeds, plasterboard and existing ceramic tiled surfaces.

### SURFACE PREPARATION

The backgrounds to receive the ceramic tiles should be mature, stable and be installed in accordance with the relevant parts of BS 5385 and BS 8000 : Part 11 Workmanship on Building Sites. Backgrounds to receive ceramic tiles should be finished to Surface Regularity 1, i.e. so any gap under a 2m straight edge does not exceed 3mm.

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 background has adequate drying time, as given in the relevant part of BS 5385, prior to fixing the tiles. ARDEX X 7 R can be applied to dry or moist surfaces but moisture sensitive materials must be dry and remain dry after fixing.

### ARDEX Waterproof Coating System

Is ideal for protecting moisture sensitive backgrounds in wet locations, prior to fixing tiles.

### MIXING

ARDEX X 7 R powder is added to clean water in a clean container whilst stirring and mixed thoroughly to give a slump free easily worked mortar. The mix proportions by volume are approximately: 3 1/4 parts ARDEX X 7 R powder : 1 part water.

A 22kg bag of ARDEX X 7 R grey requires approximately 5.5 litres of water.

A 20kg bag of ARDEX X 7 R W white requires 6.8 litres of water, DO NOT EXCEED the maximum of 6.8 litres of water per 20kg bag.

The consistency of the adhesive can be adjusted to suit site conditions and the materials being fixed. The mortar should be applied at temperatures above 5°C.

The pot life of the mixed mortar is approximately 30 minutes at 20°C.

### FIXING TECHNIQUE

The mixed mortar is applied to the prepared surface with a trowel and then combed through with a suitably sized notched trowel in straight ribs to give a ribbed mortar bed. The tiles should be fixed within the open time of the applied adhesive and pressed into place with a twisting and sliding action to achieve the required contact. For tiling to walls in dry internal locations, current codes of practice recommend that the adhesive contact should be with at least 50% of the back of the tile. For maximum performance at least 80% of the back of the tile should be adhered. When tiling to floors and all external situations, or in wet areas such as showers and swimming pools, solid bed fixing should be achieved. To achieve a solid bed usually requires the tiles to be buttered immediately prior to placing into the ribbed bed so no voids are left beneath the tiles. The size of notched trowel chosen depends on the tile size, the surface being tiled, the profile on the back of the tile and the degree of coverage required. ARDEX X 7 R grey and ARDEX X 7 R W white are

classified as having an open time of not less than 20 minutes when measured in accordance with BS EN 12004. For optimum performance under typical UK site conditions tiles should be fixed within 10 minutes and tiles can then be adjusted for up to 20 minutes at 20°C.

### GROUTING

Grouting can proceed once the tile bed has hardened sufficiently so that the tiles will not be dislodged. Wall tiles can be grouted as soon as the tile bed has set and hardened sufficiently, typically after 2 hours at 20°C. When grouting floor tiles the ARDEX X 7 R is normally hard enough after 2 hours at 20°C to accept foot traffic depending on the porosity of the tile and the background. Higher temperatures will shorten and lower temperatures will lengthen these times. The tile joints should be grouted with the appropriate ARDEX or ARDEX-FLEX grout mortar.

### COVERAGE

A 22kg bag of ARDEX X 7 R grey will yield approximately 15.7 litres of mortar, equivalent to approximately 5.2m<sup>2</sup> solid 3mm bed of adhesive. Approximately 1.4kg powder/m<sup>2</sup>/mm.

A 20kg bag of ARDEX X 7 R W white will yield approximately 16.7 litres of mortar equivalent to approximately 5.6m<sup>2</sup> solid 3mm bed adhesive. Approximately 1.2kg powder/m<sup>2</sup>/mm

### PRIMERS

#### ARDEX P 51

The primer to use on plaster and other calcium sulfate-based substrates before fixing with ARDEX X 7 R adhesive, diluted 1 : 3 with water.

#### ARDEX P 82

Non-flammable, water dispersed epoxy primer for priming internal, smooth impervious surfaces including existing ceramic tiling, internal asphalt, terrazzo, sound and well adhered paint coatings and old adhesive residues, prior to the use of ARDEX X 7 R.

### GUIDANCE NOTES ON BACKGROUNDS TO BE TILED

#### Concrete

Allow at least 6 weeks, preferably at least 12 weeks drying time prior to fixing tiles onto new concrete. Mechanically clean concrete and ensure mould oil and curing agents are removed.

#### Cement/sand render and screed

Wood float finish and prevent rapid drying of the surface for 3 days (renders) or 7 days (screeds). Allow render to air dry for at least 2 weeks prior to tiling or at least 3 weeks for screeds prior to tiling.

#### Gypsum Plaster

Do not use in wet or damp conditions. Gypsum plaster must be dry and at least 4 weeks old prior to tiling. Wire brush plaster to remove dust. Use ARDEX P 51 primer. Tile weight should not exceed 20kg/m<sup>2</sup>.

#### Plasterboard

Ensure boards are rigidly braced and adequately supported. Fix directly to the paper facing. Do not skim with plaster. Tile weight should not exceed 32kg/m<sup>2</sup>.

#### Wood-based sheets and boards

For fixing to these backgrounds, consult the ARDEX-FLEX 7001 Timber System data sheet for floors and the ARDEX D 20 and ARDEX D 30 ready mixed wall tile adhesive data sheets for walls.

#### Painted surfaces

A trial area should be carried out by priming the sound paint coating with ARDEX P 82 primer prior to fixing the tiles in ARDEX X 7 R.

#### Calcium Sulfate-based screeds i.e. Anhydrite

Ensure they have been laid and prepared in accordance with the manufacturers' recommendations. Generally they require sanding and have a moisture content of 0.5% or less. Prime with ARDEX P 51, diluted with 3 parts of water.

#### Existing glazed ceramic tiling

Ensure existing tiling is well adhered and can support the new tile bed. Thorough cleaning and rinsing off is essential. Prime tiles with ARDEX P 82. Internal dry areas only.

#### Brickwork

Allow new walls to dry for at least 6 weeks, preferably 12 weeks, prior to direct fixing or rendering.

#### Concrete blockwork

New walls should be built with dry blocks. Allow 6 weeks, preferably 12 weeks drying time prior to direct fixing or rendering.

#### Asphalt sanded

With well adhered sand key no primer is required. Internal areas only. If sand key is poor or worn off, proceed as for smooth asphalt.

#### Asphalt smooth

Priming with ARDEX P 82 recommended. Internal dry areas.

#### Underfloor heating

ARDEX X 7 R is suitable for fixing ceramic tiles to concrete or cement and sand screeds with underfloor heating.

#### PACKAGING

ARDEX X 7 R grey is packed in paper sacks incorporating a polyethylene liner - net weight 22kg. ARDEX X 7 R W white is packed in paper sacks incorporating a polyethylene liner - net weight 20kg.

#### STORAGE AND SHELF LIFE

ARDEX X 7 R grey contains a reducing agent to control the level of Chromium VI when mixed prior to use.

ARDEX X 7 R must be stored in unopened packaging, clear of the ground in cool dry conditions and protected from excessive draught. If stored correctly, as detailed above, and used within 12 months of the date shown on the packaging, the activity of the reducing agent in ARDEX X 7 R grey (added to control the level of soluble Chromium VI) will be maintained and this product will contain, when mixed with water, no more than 0.0002% (2ppm) soluble Chromium VI of the total dry weight of the cement content of this product.

ARDEX X 7 R must not be used after the end of the declared storage period.

#### PRECAUTIONS

ARDEX X 7 R contains more than 20% portland cement and, therefore, in line with current legislation, is classified as irritating to eyes and skin. For this reason the following precautions should be observed:-

Avoid contact with skin and eyes; in case of contact with the eyes, rinse immediately with plenty of water and seek medical advice; wear suitable gloves and keep the product out of the reach of children. Avoid generation of airborne dust during mixing.

For further information consult the relevant health and safety data sheet.

#### TECHNICAL DATA

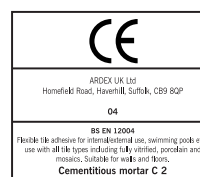
Weight of fresh mortar grey	approximately 1.75kg/litre
Weight of fresh mortar white	approximately 1.6kg/litre
Working time (20°C)	approximately 30 minutes
Adjusting time (20°C)	approximately 10 minutes

#### PROPERTIES TESTED TO BS EN 12004

**Slump Resistance:** Slip - less than 0.5mm

#### Tensile Adhesion Strength

(28 days dry)	1.0-2.0 N/mm <sup>2</sup>
(28 days wet)	1.0-1.5 N/mm <sup>2</sup>
(After Freeze-Thaw)	1.0-1.5 N/mm <sup>2</sup>
(24 hours dry)	0.5-1.0 N/mm <sup>2</sup>



**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.