



CI/SfB

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PRODUCT DATA SHEET

# ARDEX X7G

# ARDEX X7W

## Grey or White Tile Adhesives with Built-In Admix



Now fixes  
porcelain and  
fully vitrified  
tiles!

### Features

- Versatile multipurpose tile adhesives for fixing wall and floor tiles
- Suitable for ceramic, porcelain, glass mosaic, and most natural stone tiles
- For internal and external use
- Frost and weather resistant
- Suitable for swimming pools and other wet locations
- Excellent workability and slump resistance
- Suitable for floors with underfloor heating



Reg No. FM 1207



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# ARDEX X7G / ARDEX X7W

## Grey or White Tile Adhesives with Built-In Admix

### USE

ARDEX X7G and ARDEX X7W are versatile multipurpose tile adhesives, with enhanced properties of adhesion, suitable for fixing ceramic, porcelain, glass mosaics, and most non-moisture sensitive natural stone floor and wall tiles. ARDEX X7G and ARDEX X7W are frost and weather resistant, and can be used internally and externally as well as in wet areas and swimming pools.

### DESCRIPTION

The BS EN 12004 C2 TE designation for ARDEX X7G and ARDEX X7W classifies the adhesives as 'improved cementitious adhesives with additional characteristics, reduced slip and extended open time.' The additional characteristics for ARDEX X7G and ARDEX X7W determined in accordance with BS EN 12004, are a tensile adhesion strength of greater than 1 N/mm<sup>2</sup> as an initial 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 locations, including swimming pools. The mixed mortar has a slump free consistency with high initial grab, enabling heavy wall tiles to be fixed, thus reducing the need for battens and spacers. ARDEX X7G and ARDEX X7W adhere 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.

ARDEX X7G and ARDEX X7W can also be used for bonding rigid foam insulating materials, e.g. polystyrene, polyurethane, etc. For fixing tiles to internal wooden floors, consult the ARDEX X7001 product data sheet. Due regard should also be given to the recommendations in the relevant parts of BS 5385 and sections of: BS 8000 : Part 11. ARDEX X7G and ARDEX X7W can be used to fix tiles to concrete or cement/sand screeds with underfloor heating.

### SURFACE PREPARATION

The backgrounds and surfaces to receive tiles must be clean, firm, free of dust, dirt, oil, grease and other barriers to adhesion, 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, and is correctly primed, where required, prior to fixing the tiles. Install tiles 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 so any gap under a 2m straight edge does not exceed 3mm (Surface Regularity 1). ARDEX X7G and

ARDEX X7W can be applied to dry or moist surfaces, but moisture sensitive materials must remain dry after tiling.

ARDEX WPC Waterproof Protection Coating System can be used prior to tiling to create a waterproof protective coating that guarantees the prevention of water damage to floors and walls, by protecting moisture sensitive backgrounds in wet locations.

ARDEX X7G and ARDEX X7W must be used with the addition of ARDEX E 90 Mortar Admix (3.6kg), to fix tiles in swimming pools or in external locations. If swimming pools require tanking prior to tiling, consider the use of ARDEX S 7. Extruded or keyed back tiles fixed in these locations, do not require the use of ARDEX E 90.

### MIXING

Add the ARDEX X7G and ARDEX X7W powder to water in a clean container, whilst stirring and mixing thoroughly to give a slump-free, easily worked mortar.

The use of an ARDEX mixing paddle with a 10mm chuck, variable speed electric drill, makes light work of mixing.

The mixing proportions by volume are:- Approximately 2<sup>1</sup>/<sub>2</sub> parts ARDEX X7G or ARDEX X7W powder: 1 part water;

A 20kg bag of ARDEX X7G or ARDEX X7W requires approximately 6 litres of water.

The consistency of the adhesive can be adjusted to suit site conditions and the materials being fixed, but must always be slump-free. The pot life of the mixed mortar is approximately 5 hours at normal temperatures (20°C). The mortar should be applied at temperatures above 5°C.

### APPLICATION

The mixed adhesive 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, the adhesive contact should be with at least 50% of the back of the tile. For maximum performance, at least 80% adhesive contact to the back of the tile should be achieved.

When tiling to all floors, and in wet areas, such as showers and swimming pools, or in external location, achieving a solid bed usually requires the backs of the tiles to be buttered immediately prior to placing into the ribbed bed, so no voids are left beneath the tiles. The size of the 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 X7G and ARDEX X7W are classified as having an extended open time of not 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, and can be adjusted for up to 10 minutes at 20°C. For areas that need rendering, the use of ARDEX AM 100 rapid hardening render, which will allow tiling to commence after only 2 hours at 20°C, should be considered.

### GROUTING

Grouting can proceed once the tile bed has hardened sufficiently so that the tiles will not be dislodged. When grouting floor tiles ARDEX X7G and ARDEX X7W are normally hard enough after 24 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-FLEX Tile Grout, or ARDEX EG 8 Cement/Epoxy Hybrid Grout for areas where chemical resistance and hygienic joints are required i.e. commercial food preparation areas.

### PRIMERS

#### ARDEX P 51

Concentrated Water-Based Primer and Bonding Agent for use on absorbent backgrounds, plaster and anhydrite/calcium sulphate screeds prior to the use of ARDEX X7G or ARDEX X7W. Dilute ARDEX P 51 1:3 with water.

#### ARDEX P 4

Ready Mixed, Multipurpose, Rapid Drying Primer for use on ceramic and porcelain tiles, concrete and terrazzo.

ARDEX P 4 Primer is solvent free, and dries after 60 minutes. It is suitable for use in dry, damp or wet (not submerged) internal and external locations.

#### ARDEX P 82

Non-Flammable, Water-Based Synthetic Primer for use on smooth impervious surfaces including existing ceramic tiling, internal asphalt, terrazzo, timber walls, sound and well adhered paint coatings and old adhesive residues, prior to the use of ARDEX X7G or ARDEX X7W.

### 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 in good conditions for at least 2 weeks prior to tiling or at least 3 weeks for screeds prior to tiling.

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### Note for Screeds:

With an ARDEX A 38 cement/sand screed, tiles can be fixed after only 4 hours.

### Note for Renders:

With ARDEX AM 100 Rapid Hardening One Coat Tile Render tiles can be fixed only 2 hours after application.

### 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

Prior to tiling, ensure that new or existing boards are dry i.e. conditioned to the environment in which they will be used, and are rigidly fixed, ventilated and free from barriers to adhesion. For timber floors ARDEX recommend the use of ARDEX X 7001 adhesive and ARDEX P 51 Primer.

When using ARDEX X7G or ARDEX X7W on plywood walls, the plywood needs to be primed with ARDEX P82 Primer.

**NOTE:** BS 5385 advises that wood based sheets and boards should be avoided if at all possible as a background for tiling. If such boards, e.g. plywood board, chipboard, etc. have to be used, they should be restricted to small areas and installed in such a way that they provide a dimensionally stable and rigid background. The backs and edges of such boards should be treated against the ingress of atmospheric moisture that would result in movement and warping.

Tiles should not bridge joints between boards. Since plywood and other wood based boards are not dimensionally stable, they should not be used in wet or damp conditions where they will be subjected to changes in atmospheric humidity. Ceramic tiles should not be used on timber based boards in wet areas or external locations.

### 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 X7G or ARDEX X7W.

### 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 must have a moisture content of 0.5% or less measured using the carbide method. 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), or ARDEX P 4 (external locations).

### 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 X7G and ARDEX X7W are suitable for fixing ceramic tiles to concrete or cement and sand screeds with underfloor heating.

### COVERAGE

When fixing ceramic tiles on level substrates the coverage depends on the back profile of the tiles and the notched trowel to be used.

A 20kg bag of ARDEX X7G or ARDEX X7W will yield approximately 15.3 litres of mortar, using approximately 1.3kg of powder per m<sup>2</sup> per mm thickness of adhesive bed. The actual coverage achieved in practice will depend on the back profile of the tile and notched trowel and technique used to bed the tiles e.g., a 20kg bag of ARDEX X7G or ARDEX X7W will cover approximately 8.75m<sup>2</sup> when using a 5mm x 5mm square toothed and notched trowel held at an angle of 45°.

### PACKAGING

ARDEX X7G and ARDEX X7W is packed in paper sacks incorporating a polyethylene liner - net weight 20kg.

### STORAGE AND SHELF LIFE

ARDEX X7G and ARDEX X7W contain a reducing agent to control the level of Chromium VI when mixed prior to use.

ARDEX X7G and ARDEX X7W 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 (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. Use of the product after the end of the declared storage period may increase the risk of allergic reaction.

ARDEX X7G and ARDEX X7W 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.

### PRECAUTIONS

ARDEX X7G and ARDEX X7W contain more than 20% portland cement and are therefore 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

**Bulk density of powder**  
approximately 1.2kg/litre

**Weight of fresh mortar**  
approximately 1.7kg/litre

**Initial Set (Vicat) DIN 1164**  
approximately 5 hours

**Final Set (Vicat) DIN 1164**  
approximately 18 hours

**Compressive Strength (DIN 1164)**  
After 28 days 17.9 N/mm<sup>2</sup>

**Tensile Bending Strength (DIN 1164)**  
After 28 days 6.4 N/mm<sup>2</sup>

**PROPERTIES TESTED TO BS EN 12004**  
**Open Time:** approximately 30 minutes

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

**Tensile Adhesion Strength:**

Greater than 1 N/mm<sup>2</sup> under all test conditions.



**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:**  
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