



CI/SfB

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APRIL 2005
PRODUCT DATA SHEET

ARDEX X7G



ARDEX X7W



Grey or White Tile Adhesive

Features

Versatile multipurpose tile adhesives

For fixing wall and floor tiles

Suitable for ceramic 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

Use with ARDEX E90 to fix fully vitrified and porcelain tiles



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ARDEX X7 G ARDEX X7 W

Grey or White Tile Adhesive

DESCRIPTION

ARDEX X7 G is classified as C1 T (normal setting cementitious adhesive with reduced slip) and ARDEX X7 W is classified as C1 TE (normal setting cementitious adhesive with reduced slip and extended open time) in accordance with BS EN 12004. ARDEX X7 is a specially formulated cement-based adhesive, available in grey or white, for fixing ceramic floor and wall tiles, mosaics, natural stone cladding materials, brick slips, etc. ARDEX X7 can also be used for bonding rigid foam insulating materials, e.g. polystyrene, polyurethane, etc. ARDEX X7 mortar adheres strongly to concrete, cement/sand, blockwork and brickwork. For wood, plaster, plasterboard and other construction materials see our Tile and Natural Stone Fixing Guide. For fixing tiles to internal wooden floors, consult the ARDEX-FLEX 7001 Timber System 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 X7 is completely unaffected by frost and water once set and is suitable for interior and exterior use, for swimming pools and for conditions which are subject to excessive dampness, e.g. showers and bathrooms, on suitable moisture resistant backgrounds. If tiling in wet locations consult the ARDEX design data sheet for tiling in commercial and domestic showers along with the data sheets for ARDEX S1-K Ready Mixed Waterproof Coating and ARDEX WPC Flexible, Rapid Drying and Setting Waterproof Coating.

ARDEX X7 can be used with ARDEX E90 mortar admix to provide improved adhesion with resilient and water-repellent properties when set and hardened (see ARDEX E90 product data sheet). The use of ARDEX E90 mortar admix is especially effective when fixing large flat-backed tiles and slabs as well as smooth-backed, dense, fully vitrified and impervious ceramics, vitreous mosaics, porcelain etc; fixing of ceramic tiles on existing glazed surfaces and fixing external tiling to inhibit the formation of lime bloom and efflorescence. The inclusion of ARDEX E90 will enable tiles to be fixed to concrete or cement/sand screeds with underfloor heating.

SURFACE PREPARATION

The surface being adhered to must be clean, firm and 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. ARDEX X7 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 drying time of any background, as given in the relevant part of BS 5385, is allowed to elapse before fixing the tiles.

Plaster surfaces must be thoroughly dry. Ensure that any trowelled in plaster dust is brushed off using a stiff brush. Smooth, overtrowelled or water-flashed plaster surfaces may be unsatisfactory for ceramic tiling - lightly wire brush to remove weak surface skin. Prime the prepared plaster with ARDEX P51 primer, diluted 1 part to 3 parts water and allow to dry. Tiles should be fixed so that the tile bed thickness does not exceed 3mm and the tile should not weigh more than 20kg/m². Very smooth, dense and impervious surfaces, such as existing ceramic tiles (glazed or unglazed), glazed bricks, terrazzo, etc., in internal dry locations can be primed with ARDEX P82 primer prior to fixing in the ARDEX X7.

MIXING

ARDEX X7 powder is added to water in a clean container whilst stirring and mixed thoroughly to give a soft, slump-free, easily worked mortar. The mixing proportions by volume are:- Approximately 2 1/2 parts ARDEX X7 powder: 1 part water; A 22kg bag of ARDEX X7 requires approximately 6 1/2 litres of water.

The consistency 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.

FIXING TECHNIQUE

For fixing ceramic tiles or mosaics, use a square toothed and notched trowel to give a ribbed mortar bed on the substrate, into which the tiles are firmly bedded whilst the mortar is still wet and workable. Use a 3mm x 3mm notch at 6mm centres for mosaics and thin flat backed wall tiling, a 5mm x 5mm notch at 10mm centres for general wall tiling and 8mm x 8mm notch at 16mm centres for floor tiling. The open time of ARDEX X7 G is not less than 20 minutes, ARDEX X7 W is 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 tiles can then be adjusted for up to 10 minutes at 20°C, depending on materials and site conditions.

It is recommended that all tiles to be fixed either in external situations, tiles with keyed back profiles, or on floors, or in situations where damp conditions may prevail after tiling, should also be buttered to ensure solid bed fixing. Strong and rigid surfaces, e.g. brickwork and blockwork, that are rough or uneven may first be levelled with a levelling bed of ARDEX X7 mortar which, when sufficiently firm, is followed by an application of the normal bed of 2 to 3mm thickness. Alternatively, given adequate skill, these two separate operations may be combined in a single application. For larger areas that need rendering, the use of ARDEX AM100 rapid hardening render, which will allow tiling to commence after only 2 hours at 20°C, should be considered.

GROUTING

Grouting may proceed as soon as the tile bed is sufficiently firm, i.e. usually 24 hours at room temperature. This period however will be extended in cold conditions. The use of ARDEX F4, or ARDEX-FLEX FS cement-based grouts is recommended for wall tile joints up to 4mm wide. Use the appropriate ARDEX or ARDEX-FLEX grout for normal floor and wall tile joints. Where the tile joints need to be chemically resistant, tough and impervious for reasons of hygiene, wear resistance, heavy traffic, etc., we recommend ARDEX WA epoxide grout.

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 22kg bag of ARDEX X7 G or ARDEX X7 W will yield approximately 17 litres of mortar, using approximately 1.3kg of powder per m² 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 22kg bag of ARDEX X7 G or ARDEX X7 W will cover approximately 9.7m² when using a 5mm x 5mm square toothed and notched trowel held at an angle of 45°.

PACKAGING

ARDEX X7 is packed in paper sacks incorporating a polyethylene liner - net weight 22kg, 11kg or 5kg.

STORAGE AND SHELF LIFE

ARDEX X7 G contains a reducing agent to control the level of Chromium VI when mixed prior to use. ARDEX X7 G 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 X7 W 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 X7 contains more than 20% portland cement and is 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 ²
Tensile Bending Strength (DIN 1164)	
After 28 days	6.4 N/mm ²
Ball Pressure Hardness (Brinell)	
After 28 days	40.2 N/mm ²

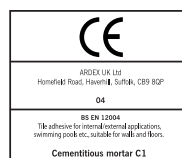
PROPERTIES TESTED TO THE REQUIREMENTS OF BS EN 12004

Tensile Adhesion Strength		
After 28 days storage in standard climate		
Ceramic Tiles	greater than	0.5 N/mm ²
Stoneware Tiles	greater than	0.5 N/mm ²
Following freeze/thaw cycling to DIN 52104		
Stoneware Tiles	greater than	0.5 N/mm ²
After 28 days storage in water		
Ceramic Tiles	greater than	0.5 N/mm ²
Stoneware Tiles	greater than	0.5 N/mm ²

Slip Resistance	Slip - less than 0.5mm
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ARDEX X7 W	
Extended Open Time	Adhesion greater than 0.5 N/mm ² after not less than 30 minutes

Although the advice given on the use of ARDEX X7 in this leaflet refers mainly to ceramic tiling, this product is also suitable for fixing a wide range of materials used in the building industry.



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