

CI/SfB (43)Y Yt3

FEBRUARY 2010 PRODUCT DATA SHEET

# **ARDEX X 7001** and **X 7001 W**

## Rapid Drying Flexible Floor Tile Adhesive

- Ideal for wood-based sheets and boards -RAPIDRY FORMULA reduces the risk of mix water affecting wooden substrates
- Rapid hardening and drying can be trafficked and grouted 2 hours after fixing
- ARDEX X 7001 W white is ideal for fixing light and translucent marble and limestone
- Excellent adhesion and easy to work
- Use with all tile types including fully vitrified, porcelain and agglomerate stone
- Mix consistency facilitates solid bedding









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## **ARDEX X7001 and X7001 W**

## Rapid Drying Flexible Floor Tile Adhesive

#### **DESCRIPTION**

ARDEX X 7001/ARDEX X 7001W is a grey or white MICROTEC fibre reinforced rapid hardening and drying, flexible cement-based floor tile adhesive. It is ideal for fixing floor tiles to wood-based sheets and boards and other surfaces. The inclusion of the fibres reduces the possibility of the floor tiles cracking over board joints if movement of the timber occurs.

The BS EN 12004 C2 FE classifies the adhesive as an "improved fast setting cementitious adhesive with additional characteristics and extended open time".

ARDEX X 7001/ARDEX X 7001 W has a built-in admix requiring only the addition of water to provide an adhesive with flexibility which is also suitable for fixing fully vitrified tiles, porcelain and natural stones and will allow grouting to commence after only 2 hours.

ARDEX X 7001/ARDEX X 7001 W is a quick drying low alkalinity cement based adhesive and is therefore particularly suited for the fixing of moisture sensitive natural and agglomerated stone tiles. Consult the latest edition of BS 5835-5.

ARDEX X 7001/ARDEX X 7001 W can also be used to adhere certain accoustic matting systems prior to tiling. ARDEX X 7001/ARDEX X 7001 W is recommended for internal use only.

The mixed mortar has a pourable consistency enabling solid bedding of tiles without the need to butter the back profile.

#### SURFACE PREPARATION

#### Concrete

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

#### Cement/sand screed

Wood float finish and prevent rapid drying of the surface for 7 days. Allow to air dry for at least 3 weeks prior to tiling.

#### 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. Thorough cleaning and rinsing off is essential. Prime tiles with ARDEX P82 or ARDEX P4 rapid drying primer. Internal dry areas only.

#### Flooring Grade 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.

#### Flooring Grade asphalt smooth

Priming with ARDEX P 82 recommended. Internal dry areas only.

#### **Timber Sub-Floors**

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 beneath and free from barriers to adhesion.

Existing tongue and groove floor boards of traditional construction should be screwed or ring nailed down to the joists to provide a rigidly fixed, flat and adequately braced surface. Any existing floor polish, wax, old adhesive etc., should be removed, e.g. by sanding to expose a clean surface prior to tiling.

Where suspended sub-floors of undulating tongue and groove floor boards need to be stiffened by overlaying with plywood or flooring grade chipboard, the tongue and groove floor should be pre-smoothed with ARDITEX latex levelling compound or ARDITEX NA, low odour latex levelling compound before overlaying.

Plywood and flooring grade chipboard should have the backs and edges sealed e.g. with polyurethane varnish and be at least 15mm thick and screwed or ring nailed down to the joists at 300mm centres or less. The board surface should be clean and free of barriers to adhesion e.g. fire retardents, impregnated wax etc. Some chipboard floor systems require the joints to be glued together and guidance from the manufacturer should be sought.

Existing suspended wooden sub-floors of plywood or chipboard should be adequately constructed to provide a rigid base for the ceramic floor tiling.

The boards should be at equilibrium moisture content, i.e. the state of dryness it will attain in normal service conditions, at the time it is covered.

In all cases, the wood surface to be tiled should be stable and adequately strong and suitably rigid to withstand the imposed loads without deflection. Extra noggins may be required between the joists to stiffen the floor as advised in BS 5385-3:2007 clause 6.3.4.

Ceramic floor tiles should not be used on wood based boards in wet areas, or external locations.

## **ARDEX X7001 and X7001 W**

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If the existing wood floor is damp because of location, e.g. bathroom or kitchen, then the floor must be oversheeted with an appropriate tile backing or matting system. Floating or heated timber floors are not recommended as bases for rigid floor finishes.

#### **PRIMING**

The prepared board surface must be primed with ARDEX P 51 primer. The primer should be applied undiluted by brush in one coat only and allowed to dry for at least 1 hour at 20°C.

#### MIXING

ARDEX X 7001/ARDEX X 7001 W powder is added to clean water in a clean container whilst stirring and mixed thoroughly to give a fluid, easily worked mortar. The use of an ARDEX mixing paddle with a 10mm chuck, variable speed electric drill makes light work of mixing.

A 20kg bag of ARDEX X 7001/ARDEX X 7001 W requires approximately 4.5 litres of water.

The mortar is immediately ready for use and has a pot life of approximately 1 hour at  $20^{\circ}$ C.

ARDEX X 7001/ARDEX X 7001 W should be applied at temperatures above  $5^{\circ}$ C.

#### **FIXING TECHNIQUE**

The mixed mortar is applied onto the prepared sub-floor and combed through with the appropriate notched trowel to give straight ribs of mortar. The workability of the ARDEX X 7001/ARDEX X 7001 W allows the floor tiles to be fixed in a single operation so that no voids are left beneath the tiles.

ARDEX X 7001/ARDEX X 7001 W 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 15 minutes.

The area covered by the ribbed mortar bed should be limited so that tiles can be bedded within the open time. When the mixed mortar begins to stiffen the mortar must be discarded, do not add more water. In general, use the following square notch patterns:

5mm x 5mm for flat backed tiles, 8mm x 8mm for general floor tiling or 10mm x 10mm for keyed extruded tiles.

The size of notched trowel can be altered depending on the bed thickness required and the profile on the back of the tile, but solid bedding should always be achieved and checked for, as advised in BS 5385-3 and BS 8000: Section 11.1.

For application onto timber based substrates the adhesive bed thickness achieved using the above notched trowels should be between 1mm and 4mm.

The newly laid tiles can be adjusted for up to 15 minutes after fixing.

#### **GROUTING**

Tiles fixed with ARDEX X 7001/ARDEX X 7001 W can be grouted after 2 hours at 20°C with either the ARDEX-FLEX grouts or the appropriate ARDEX grouts incorporating ARDEX E 101 admix where necessary e.g., timber. For guidance on grouting natural stones, please consult the ARDEX Natural Stone Tiling Guide, with reference to using ARDEX MG grout. Higher temperatures will shorten and lower temperatures will lengthen the time taken before grouting may commence.

#### **COVERAGE**

A 20kg bag of ARDEX X 7001/ARDEX X 7001 W will yield approximately 14.4 litres of mortar, equivalent to approximately 4.8m² of a solid 3mm bed of adhesive. Approximately 1.4kg of ARDEX X 7001/ARDEX X 7001 W powder/m²/mm of bed thickness.

#### STORAGE AND SHELF LIFE

ARDEX X 7001/ARDEX X 7001 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.

#### **PACKAGING**

ARDEX X 7001/ARDEX X 7001 W is packed in paper sacks incorporating a polyethylene liner - net weight 20kg (White or Grey).

#### **PRECAUTIONS**

ARDEX X 7001/ARDEX X 7001 W is considered non-hazardous in normal usage. The presence of cement in the product gives an alkaline mortar, which may cause some local irritation if prolonged contact with the skin takes place. Care should be taken to avoid inhalation or ingestion of dust and prevent contact with the eyes.

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

## ARDEX X 7001 and X 7001 W

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#### **TECHNICAL DATA**

Bulk density of powder: approximately 1.3kg/ltr
Weight of fresh mortar: approximately 1.7kg/ltr
Working time (20°C): approximately 1 hour
Fixing time: approximately 15 minutes
Adjusting time: approximately 15 minutes

#### **Compressive Strength**

After 3 hours approximately 5 N/mm<sup>2</sup>
After 6 hours approximately 8 N/mm<sup>2</sup>
After 1 day approximately 10 N/mm<sup>2</sup>
After 28 days approximately 19 N/mm<sup>2</sup>

#### **Tensile Bending Strength**

After 3 hours approximately 1.5 N/mm<sup>2</sup>
After 6 hours approximately 2 N/mm<sup>2</sup>
After 1 day approximately 3 N/mm<sup>2</sup>
After 28 days approximately 6 N/mm<sup>2</sup>

## Early Tensile Adhesion Strength Development (DIN 18156-M)

After 3 hours approximately 0.7 N/mm² After 6 hours approximately 0.9 N/mm² After 1 day approximately 1.2 N/mm²

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

Tensile Adhesion Strength Greater than 1 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

#### Reaction to Fire

#### **Underfloor Heating**



Class E

ARDEX X 7001/
ARDEX X 7001 W is suitable for fixing ceramic tiles to concrete or cement and sand screeds with underfloor heating.

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

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