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PRODUCT DATA SHEET

ARDEX X 7 G ARDEX X 7 W

Flexible Wall and Floor Tile Adhesive



Features

- Excellent workability and slump resistance
- 5-hour pot life
- Ideal for almost all tile types including non-moisture sensitive natural stone
- Suitable for wall and floor applications
- Suitable for internal and external areas
- Suitable for use with underfloor heating



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EMS 565427

OHS 628374

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ARDEX X 7 G / ARDEX X 7 W

Flexible Wall and Floor Tile Adhesive

USE

ARDEX X 7 G and ARDEX X 7 W 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 X 7 G and ARDEX X 7 W 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 S1 designation for ARDEX X 7 G and ARDEX X 7 W classifies the adhesives as 'Improved deformable cementitious adhesive with reduced slip and extended open time.' The additional characteristics for ARDEX X 7 G and ARDEX X 7 W determined in accordance with BS EN 12004, are a tensile adhesion strength of greater than 1 N/mm² as an initial adhesion value, greater than 1 N/mm² after water immersion, greater than 1 N/mm² after heat aging, and greater than 1 N/mm² 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 X 7 G and ARDEX X 7 W 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 X 7 G and ARDEX X 7 W 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 X 7001 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 X 7 G and ARDEX X 7 W can be used to fix tiles to concrete or cement/sand screeds with under-floor 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 X 7 G and ARDEX X 7 W 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 in showers 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. If swimming pools require tanking prior to tiling, consider the use of ARDEX S 7 PLUS.

MIXING

Add the ARDEX X 7 G and ARDEX X 7 W 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 2¹/₂ parts ARDEX X 7 G or ARDEX X 7 W powder: 1 part water.

A 20kg bag of ARDEX X 7 G or ARDEX X 7 W 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. ARDEX X 7 G and ARDEX X 7 W must be used with the addition of ARDEX E 90 Mortar Admix (3.6kg), to fix glass mosaic and porcelain/fully vitrified tiles in swimming pools or in external locations. Extruded or keyed back tiles fixed in these locations, do not require the use of ARDEX E 90.

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 such that maximum practical contact between the tile and the adhesive is achieved. Tiles with a surface area of less than 0.1 m², but which weigh more per square metre than 70% of the background's capacity to carry the weight, should be solidly bedded. Tiles with a surface area of 0.1 m² or greater, should be solidly bedded.

When tiling to all floors, and in wet areas, such as showers and swimming pools, or in external locations, 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 X 7 G and ARDEX X 7 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 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 wall tiles, ARDEX X 7 G and ARDEX X 7 W are normally hard enough after 8 hours at 20°C, depending on the porosity of the tile and the background. When grouting floor tiles ARDEX X 7 G and ARDEX X 7 W 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 18 PLUS Epoxide Tile Grout where chemical resistance and hygienic joints are required.

PRIMERS

ARDEX P 51

Concentrated Water-Based Primer and Bonding Agent for use on absorbent backgrounds, plaster and anhydrite screeds prior to the use of ARDEX X 7 G or ARDEX X 7 W. 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, sound and well adhered paint coatings and old adhesive residues, prior to the use of ARDEX X 7 G or ARDEX X 7 W.

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.

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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.

Note for Screeds:

With an ARDEX A 38 cement/sand screed, tiles can be fixed after only 4 hours or an ARDEX A 29 screed after 24 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. Tiling weight should not exceed 20kg /m².

Plasterboard

Ensure boards are rigidly braced and adequately supported. Fix directly to the paper facing. Do not skim with plaster. Tiling weight should not exceed 32kg /m².

Wood-based sheets and boards

Prior to floor 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, ARDEX S 27 or ARDEX S 28 tile adhesives and ARDEX P 51 Primer.

NOTE: BS 5385-1 advises that plywood and other wood-based sheets or boards should not be used for direct tiling to walls.

Timber-based sheets or boards should be replaced or over sheeted with plasterboard, or suitable tile backer board.

Painted surfaces

ARDEX's advice is always to remove the painted finish to reveal a sound substrate without barriers to adhesion. Where the contractor deems the painted finish as sound, it should be primed with ARDEX P 82 Primer before tiling with ARDEX X7W/G commences. A trial application is recommended first. Internal, dry areas only.

Calcium Sulfate-based screeds

i.e. Anhydrite

Ensure they have been laid and prepared in accordance with the manufacturer's 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, or dependent of the information from the gypsum screed manufacturer, a suitably sand blinded coat of an epoxy based primer such as ARDEX R 3 E may be required.

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 X 7 G and ARDEX X 7 W are suitable for fixing ceramic tiles to concrete or cement and sand screeds with fully commissioned 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 X 7 G or ARDEX X 7 W will yield approximately 15.3 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 20kg bag of ARDEX X 7 G or ARDEX X 7 W will cover approximately 8.75m² when using a 5mm x 5mm square toothed and notched trowel held at an angle of 45°.

PACKAGING

ARDEX X 7 G and ARDEX X 7 W is packed in paper sacks incorporating a polyethylene liner - net weight 20kg.

STORAGE AND SHELF LIFE

ARDEX X 7 G and ARDEX X 7 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.

NOTE: For the latest technical or health and safety data on this product, consult the current technical or health and safety data sheet online at www.ardex.co.uk

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/mm²

Tensile Bending Strength (DIN 1164)
After 28 days 6.4 N/mm²

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/mm² 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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