



CI/SfB

Yt3

MAY 2005
BUILDING DIVISION
PRODUCT DATA SHEET

ARDEX-FLEX 5001

Grey Flexible Adhesive with Built-In Admix for Floor and Wall Tiling

Features

Ideal for swimming pools and wet areas

Major savings over a traditional cement-based adhesive and admix

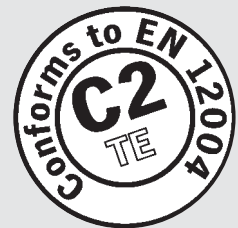
Use with all tile types including fully vitrified, porcelain and mosaics

Suitable for wall and floor tiling

Excellent slump resistance

For internal and external applications

Available in 22kg and 11kg bags



Reg No. FM 1207

ARDEX UK LIMITED
Homefield Road, Haverhill, Suffolk CB9 8QP UK.
Telephone: +44 (0)1440 714939
Fax: +44 (0)1440 716660
Technical Services Fax: +44 (0)1440 716640
Email: technical.services@ardex.co.uk
ARDEX online: www.ardex.co.uk

ARDEX-FLEX 5001

Grey Flexible Adhesive with Built-In Admix for Floor and Wall Tiling

DESCRIPTION

ARDEX-FLEX 5001 is a grey cement-based floor and wall tile adhesive, specifically formulated to have enhanced properties of adhesion and flexibility ideal for fixing fully vitrified tiles and other tiles with low porosity as well as glass and porcelain mosaics without the need of an admixture. The BS EN 12004 C2 TE designation for ARDEX-FLEX 5001 classifies the adhesive as an "improved cementitious adhesive with additional characteristics, reduced slip and extended open time". The additional characteristics for ARDEX-FLEX 5001 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 fixing all types of ceramic tiles and mosaics in 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-FLEX 5001 adheres strongly to most construction materials such as concrete, cement and sand renders and screeds, heated sub-floors, brickwork and blockwork, gypsum plaster, 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 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 had adequate drying time prior to fixing the tiles. ARDEX-FLEX 5001 can be applied to dry or moist surfaces but moisture sensitive materials must be dry and remain dry after fixing.

MIXING

ARDEX-FLEX 5001 powder is added to clean water in a clean container whilst stirring and mixed 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 mix proportions by volume are approximately: 2 1/4 parts ARDEX-FLEX 5001 powder to 1 part water.

A 22kg bag of ARDEX-FLEX 5001 requires 8 to 8.25 litres of water. DO NOT EXCEED the maximum of 8.25 litres of water per 22kg bag of ARDEX-FLEX 5001.

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 5 hours at 20°C.

The high performance characteristics of ARDEX-FLEX 5001 means that the product may exhibit satisfactory working characteristics even when the powder is mixed with more water than recommended. However the use of more water than recommended will result in a lower level of performance so that the setting time will be extended and the hardness development and adhesive strength will be impaired. It is therefore essential that mixing instructions be strictly adhered to, with particular emphasis on the quantity of water used in mixing the adhesive. Smaller quantities should be mixed at the same pro-rata ratio as the whole bag mix.

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 the adhesive contact should be at least with 50% of the back of the tile. 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-FLEX 5001 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 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. When grouting wall tiles the ARDEX-FLEX 5001 is normally hard enough after 8 hours at 20°C depending on the porosity of the tile and the background. When grouting floor tiles the ARDEX-FLEX 5001 is 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 or ARDEX-FLEX grout mortar.

COVERAGE

A 22kg bag of ARDEX-FLEX 5001 will yield approximately 20 litres of mortar, using approximately 1.1kg 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-FLEX 5001 will cover approximately 11.4m² when using a 5mm x 5mm square toothed and notched trowel held at an angle of 45 degrees.

PRIMERS

ARDEX P 51

The primer to use on plaster before fixing with ARDEX-FLEX 5001 adhesive, diluted 1:3 with water.

ARDEX P 82

Non-flammable, water-based synthetic primer for priming 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-FLEX 5001.

GUIDANCE NOTES ON BACKGROUNDS TO BE TILED

Concrete

Allow at least 6 weeks drying time prior to fixing new 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/m².

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/m².

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 or ARDEX D 30 data sheet 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-FLEX 5001.

ARDEX WPC

Can be used to protect moisture sensitive backgrounds in wet locations, prior to fixing tiles.

Existing unglazed ceramic tiling

Ensure existing tiling is well adhered and can support the new tile bed. Thorough cleaning and rinsing off essential. Internal dry areas only.

Existing glazed ceramic tiling

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

Brickwork

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

Concrete blockwork

New walls should be built with dry blocks. Allow 6 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-FLEX 5001 is suitable for fixing ceramic tiles to concrete or cement and sand screeds with underfloor heating.

PACKAGING

ARDEX-FLEX 5001 is packed in paper sacks incorporating a polyethylene liner - net weight 22kg or 11kg.

STORAGE AND SHELF LIFE

ARDEX-FLEX 5001 contains a reducing agent to control the level of Chromium VI when mixed prior to use.

ARDEX-FLEX 5001 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.

PRECAUTIONS

ARDEX-FLEX 5001 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

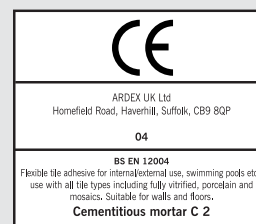
Weight of fresh mortar	approximately 1.5kg/litre
Working time (20°C)	approximately 5 hours
Fixing time (20°C)	approximately 10 minutes
Adjusting time (20°C)	approximately 20 minutes

PROPERTIES TESTED TO THE REQUIREMENTS OF BS EN 12004

Extended Open Time:	More than 0.5 N/mm ² adhesion achieved after not less than 30 minutes
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Slip Resistance:	Slip - less than 0.5mm
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Tensile Adhesion Strength	Greater than 1 N/mm ² under all test conditions.
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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.