



CI/SfB

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NOVEMBER 2005  
BUILDING DIVISION  
PRODUCT DATA SHEET

# ARDEX-FLEX 5000

## White 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

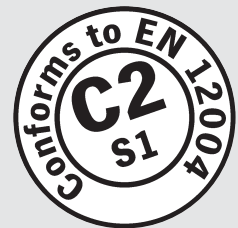
Use with all tile types including fully vitrified, porcelain and mosaics

Suitable for wall and floor tiling

Excellent slump resistance

For internal and external applications

Available in 22kg and 11kg bags



Reg No. FM 1207

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# ARDEX-FLEX 5000

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

### DESCRIPTION

The BS EN 12004 C2 S1 designation for ARDEX-FLEX 5000 classifies the adhesive as an "improved cementitious adhesive with additional characteristics". ARDEX-FLEX 5000 is a white cement-based tile adhesive, specifically formulated to have enhanced properties of adhesion and flexibility for fixing fully vitrified tiles and other tiles with low porosity as well as glass and porcelain mosaics without the need of an admixture. ARDEX-FLEX 5000 is 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 5000 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 that any gap under a 2m straight edge does not exceed 3mm.

### MIXING

ARDEX-FLEX 5000 powder is added to clean water in a clean container whilst stirring and mixed thoroughly to give a soft, 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<sup>3</sup>/<sub>4</sub> parts ARDEX-FLEX 5000 powder to 1 part water.

A 22kg bag of ARDEX-FLEX 5000 requires approximately 7 to 7<sup>1</sup>/<sub>2</sub> litres of water.

The consistency of the adhesive can be adjusted to suit 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 1<sup>1</sup>/<sub>2</sub> hours at 20°C.

The high performance characteristics of ARDEX-FLEX 5000 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. The applied mortar has an open time of up to 15 minutes and tiles can 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 5000 is normally hard enough after 4 to 8 hours at 20°C depending on the porosity of the tile and the background. When grouting floor tiles the ARDEX-FLEX 5000 is normally hard enough after 8 to 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 5000 will yield approximately 18 litres of mortar, equivalent to approximately 6m<sup>2</sup> solid 3mm bed of adhesive.

### PRIMERS

#### ARDEX P 51

The primer to use on plaster before fixing with ARDEX-FLEX 5000 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 5000.

### 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. 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 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 5000.

#### ARDEX WPC

ARDEX WPC can be used to protect moisture sensitive backgrounds in wet locations, prior to fixing tiles.

#### 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 5000 is suitable for fixing ceramic tiles to concrete or cement and sand screeds with underfloor heating.

#### 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.

### PACKAGING

ARDEX-FLEX 5000 is packed in paper sacks incorporating a polyethylene liner - net weight 22kg or 11kg.

### STORAGE AND SHELF LIFE

ARDEX-FLEX 5000 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-FLEX 5000 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.

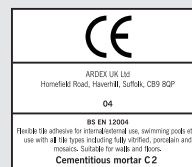
### TECHNICAL DATA

Weight of fresh mortar	approx.	1.6kg/litre
Working time (20°C)	approx.	1 <sup>1</sup> / <sub>2</sub> hours
Fixing time (20°C)	approx.	15 minutes
Adjusting time (20°C)	approx.	20 minutes

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

**Tensile Adhesion Strength** Greater than 1 N/mm<sup>2</sup> under all test conditions

**Transverse Deformation** Classification S1 (Deformation greater than or equal to 2.5mm and less than 5mm)



**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.