



CI/SfB

(43) Yq2

MAY 2005
PRODUCT DATA SHEET

ARDEX-FLEX S 38

Rapid Hardening Flexible Floor Tile Bedding Mortar

Features

For fixing all types of ceramic floor tiles including fully vitrified, porcelain, mosaics, pavers etc.



For internal and external applications

Fluid/pourable consistency - solid bedding easily achieved

Up to 30 minutes tile adjustability after fixing

Can be trafficked and grouted after 5 hours

Use as a levelling mortar up to 10mm for uneven sub-floors

Built-in admix



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ARDEX-FLEX S 38

Rapid Hardening Flexible Floor Tile Bedding Mortar

DESCRIPTION

The BS EN 12004 C2 FE S1 designation for ARDEX-FLEX S 38 classifies the adhesive as an "improved fast setting cementitious adhesive with additional characteristics and extended open time". ARDEX-FLEX S 38 is a grey, specially formulated flexible floor tile bedding mortar for fixing all types of ceramic floor tiles, mosaics, porcelain, brick pavers, terrazzo and natural stone in internal and external situations, including swimming pools. ARDEX-FLEX S 38 has enhanced adhesion properties making it ideal for fixing fully vitrified tiles, porcelain and mosaics. The mixed mortar has a fluid, pourable consistency which enables even large format tiles to be fixed without the need to butter the back profile. ARDEX-FLEX S 38 has an open time of up to 30 minutes, a working time of approximately 2 hours and tiles can be grouted and trafficked 5 hours after fixing at 20°C. The mortar adheres strongly onto cementitious bases such as concrete and cement/sand screeds, including heated sub-floors. ARDEX-FLEX S 38 can also be used for levelling rough screeds so that tiles can be fixed after approximately 5 hours at 20°C.

SURFACE PREPARATION

ARDEX-FLEX S 38 adheres to dry or moist sub-floors such as cement and sand or concrete screeds, providing they are sound, clean and free of barrier materials. Note the requirements given in BS 8000 : Part 11 : Section 11.1 and the advice given in BS 5385 : Part 3 regarding the age of backgrounds prior to tiling.

MIXING

ARDEX-FLEX S 38 powder is added to clean water in a clean mixing container whilst stirring and mixed thoroughly to give a fluid easily worked mortar. The mix proportions are: Approximately 3¹/₄ parts ARDEX-FLEX S 38 powder to 1 part water. A 22kg bag requires 5-5¹/₂ litres of water.

The water content can be adjusted depending on the size and type of tile being fixed.

The mortar is immediately ready for use and has a pot life of about 2 hours at 20°C. The consistency can be adjusted depending on the type of tile being fixed. When smoothing and levelling sub-floors, the 22kg bag of ARDEX-FLEX S 38 may be mixed with up to 5¹/₂ litres of water.

ARDEX-FLEX S 38 should be applied at temperatures above 5°C.

APPLICATION

Bedding 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-FLEX S 38 allows the mosaics or floor tiles to be fixed in a single operation so that no voids are left beneath the tiles.

ARDEX-FLEX S 38 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. 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. Use the following square notched sizes:- 3mm x 3mm for mosaics, 5mm x 5mm for flat backed tiles, 8mm x 8mm for general floor tiling or 10mm x 10mm for deeply keyed extruded tiles, natural stone, etc.

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 : Part 3, and BS 8000 : Section 11.1.

The newly laid mosaics/tiles can be adjusted for up to 30 minutes after fixing.

LEVELLING SUB-FLOORS

Where the cement and sand or concrete sub-floor requires pre-levelling prior to fixing ceramic tiles, ARDEX-FLEX S 38 can be used to obtain the required level up to a maximum thickness of 10mm. The levelling bed should be allowed to harden, approximately 5 hours, before fixing the tiles in a fresh mix of ARDEX-FLEX S 38.

GROUTING

Tiles fixed with ARDEX-FLEX S 38 may be grouted 5 hours after fixing at 20°C.

COVERAGE

A 22kg bag of ARDEX-FLEX S 38 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-FLEX S 38 will cover approximately 9.7m² when using a 5mm x 5mm square toothed and notched trowel held at an angle of 45 degrees.

PACKAGING

ARDEX-FLEX S 38 is packed in paper sacks incorporating a polyethylene liner - net weight 22kg.

STORAGE AND SHELF LIFE

ARDEX-FLEX S 38 contains a reducing agent to control the level of Chromium VI when mixed prior to use. ARDEX-FLEX S 38 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 S 38 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

Bulk density of powder	approximately 1.3kg/litre
Weight of fresh mortar	approximately 1.7kg/litre
Working time of mortar	approximately 2 hours
Walkability and grouting	approximately 5 hours after fixing

Compressive Strength

After 1 day	5.0 N/mm ²
After 3 days	15.0 N/mm ²
After 28 days	25.0 N/mm ²

Tensile Bending Strength

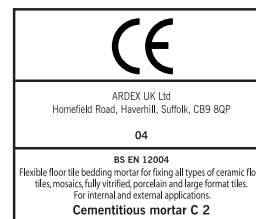
After 1 day	2.5 N/mm ²
After 3 days	4.0 N/mm ²
After 28 days	7.0 N/mm ²

PROPERTIES TESTED TO THE REQUIREMENTS OF BS EN 12004

Tensile Adhesion Strength Greater than 1 N/mm² under all test conditions.

Extended Open Time More than 0.5 N/mm² adhesion achieved after not less than 30 minutes

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.