

ArdiFlex S2

High performance, fibre reinforced, highly deformable tile/stone adhesive

DESCRIPTION

High polymer modified, off-white coloured adhesive specifically formulated to have enhanced properties of slip resistance and deformability necessary for fixing tile and stone on substrates that are subjected to deformation and/or vibrations. The fibre reinforcement further increases the bond strength and impedes the crack propagation in the composite material.

ArdiFlex S2 is used for fixing ceramic, vitrified & fully vitrified tiles, glass mosaic, porcelain, terrazzo, metal or glass tiles, non staining natural stone and engineered stone. The set adhesive is water-resistant and suitable for use in swimming pools.

STANDARDS

- ArdiFlex S2 conforms to EN 12004 : 2017 and is a highly deformable (S2) improved (2) slip resistant (T) cementitious adhesive (C) with extended open time (E) of class C2TES2.
- ArdiFlex S2 complies with the requirements of IS 15477 : 2004 Type 2 "Specification for adhesives for use Ceramic Tiles and Mosaics".

USES

Fixing tiles & stones on :

- Deformable substrates or substrates subjected to vibration (eg. timber floors, plywood, chipboard, MDF, etc)
- External facades
- Fibre cement boards, plaster boards
- Suspended swimming pools
- Areas exposed to direct sunlight & temperature fluctuations (podiums)

FEATURES

- Fibre reinforced for high performance and strength
- Highly deformable : accommodates differential movement of the covering and substrate
- Good slip resistance required for fixing large format wall tiles
- Extended open time
- Bed thickness upto 15mm : suitable for tiling on uneven substrates
- Excellent bond to various building materials
- Excellent water and frost resistance
- Excellent tensile & shear adhesion
- Easy mixing, smooth application & better workability

PHYSICAL PROPERTIES

ArdiFlex S2	@ 27± 2°C
Mixed Density	1.35 - 1.40 g/cc
Bed Thickness	2 - 15mm
Mixing Ratio (p.b.w = Parts by weight)	approx. 1 part of water and 4.5 parts of powder
Open Time	25 - 30 mins

Pot Life	approx. 3 hours
Adjustability	25 - 30 mins
Setting Time	24 hours
Ready for grouting	
Walls	approx. 8 hours
Floors	approx. 24 hours
Shear Adhesion IS 15477:2004 Type 2	
1 Day Air	12.0 kN
14 Days Air	20.0 kN
Temperature Resistance	-30°C to 150°C
VOC Content	3.75 g/L

Properties tested to EN 12004 : 2017

Transverse Deformation	5.8 mm
Extended open time	0.63 N/mm ² above 30 mins
Slip test	0.05 mm
Tensile Adhesion Strength in compliance with EN 1348	
Initial at 28 days	2.38 N/mm ² @ 28 days
After heat ageing	1.85 N/mm ² @ 14 days
After Water Immersion	1.65 N/mm ² @ 7 days

COVERAGE ESTIMATES

Pack size	Coverage
50 kg	approx. 3.0 kg/m ² @ 6mm x 6mm square notch trowel

Note: Coverage will depend on the nature and flatness of the surface and the method of application. For good coverage, it is vital that all surfaces are smooth, plumb, level and free from defects and undulations.

APPLICATION INSTRUCTIONS

Substrate Preparation

Before starting any work ensure that the base is:

- Sufficiently flat to permit the specified flatness of finished tiling, bearing in mind the permissible thickness of the adhesive.
- Suitable for tiling in the service conditions to which it will be exposed.
- Surfaces to be tiled must be dry, clean and free from loose material and contamination.

Mixing

Add ArdiFlex S2 to clean water. Mix thoroughly until a lump-free mortar is obtained. A 50 kg bag will require approx. 11.0 - 12.0 litres of water to obtain a slump-free consistency. The adhesive is immediately ready-for-use and has a pot life of approx. 3 hours. No further water should be added. Where mixing by weight is not possible, volume mixing can be carried out at site in the ratio of approx. 1 : 4.5(water : powder)

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APPLICATION

1. Spread not more than the area which can be tiled within the open time of the adhesive.
2. Comb the adhesive to the required depth using a suitable square notch trowel.
3. Press the tiles firmly into position with a slight twisting action, checking periodically that good contact is maintained with the back of each tile. Leave no voids behind tiles.
4. Tiles should be fixed within 25 minutes of adhesive being applied, depending on the porosity of the surface and atmospheric conditions. Tiles can be adjusted up to 25 minutes after fixing. Touch the adhesive ribs periodically and if a skin has formed, remove the adhesive and apply a new layer.
5. Leave adequate joints between individual wall and floor tiles unless self spacing tiles are used.
6. Clean off surplus adhesive from the tile face and between joints.

Note:

- Do not use in damp conditions and temperature less than 5°C
- Use suitable clamps along with adhesive at the time of installation of tiles/stones at height of more than 6m. For larger format tiles/stones, use clamps from 3.3m height.
- Leave movement joints at every 3m vertical interval and fill with a flexible sealant as per BS 5385.

SPACERS

Use ARDEX ENDURA spacers for uniform joint width.

GROUTING

Grouting should be carried out after 24 hours. Use the appropriate grouting material from the range of ARDEX ENDURA cementitious and epoxy grouts.

Note: The addition of ADMIX GT1 to cement - based grouts will enhance adhesion to tile/stones edges, increase water-resistance and improves flexibility.

CLEANING

Tools and containers may be cleaned using clean water when the adhesive is still fresh. The hardened adhesive can be removed from tools mechanically.

STORAGE AND SHELF LIFE

ArdiFlex S2 has a shelf life of 12 months when stored in normal dry conditions.

PRECAUTIONS

Keep out of reach of children. Wear suitable protective clothing, gloves and eyes/face protection. After contact with skin, wash immediately with plenty of clean water. In case of contact with eyes rinse immediately with plenty of clean water and seek medical advice.

For more details please refer the relevant Material Safety Data Sheet

CONDITIONS OF SALE

Sold subject to the Company's conditions of sale which are available on request.

NOTE

The information supplied in this datasheet is based upon extensive experience and 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.

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