Nitobond PVA*

constructive solutions

Multipurpose PVA adhesive, sealer and cement admixture

Uses

As a multipurpose adhesive: plaster bonding agent: primer, and integral bonding agent for concrete and granolithic floor repairs: repair of natural and reconstructed stone: bonding agent for tiles: bonding granolithic toppings to sub-concrete, dust proofing floor screeds and friable concrete flooring: primer for overcoating bitumen with oil based paints.

Advantages

- Single component liquid, gauged as required
- Bonds most common construction materials
- Improves the durability of mortars and renders
- Excellent as a dustproofer and sealer
- Easily applied by brush roller or spray
- Contains no chloride admixtures
- Versatile and economical

Description

Nitobond PVA multipurpose adhesive is supplied as a ready to use white liquid based on a polymerised resin emulsion.

Properties

Appearance	:	White viscous liquid
Specific gravity	:	Typically 1.0 @ 20°C
Chloride content	:	Nil to (BS 5075)
Compatibility with cements	:	Can be used with all types of Portland cement

Fosroc Technical Service Department should be consulted prior to using Nitobond PVA in combination with admixtures.

Specification clauses

Polymer bonding aid and mortar additive

The polymer bonding aid and mortar additive shall be Nitobond PVA, a single component polymerised resin emulsion.

Instructions for use

Preparation

Saw cut the extremities of any repair locations to a depth of at least 10 mm to avoid feather-edging and to provide a square edge.

Clean the surface and remove any dust, unsound or contaminated material, plaster, oil, paint, grease, corrosion deposits or algae. Where breaking out is not required, roughen the surface and remove any laitance by light scabbling, grit-blasting or other suitable mechanical means.

Oil and grease deposits should be removed by steam cleaning, detergent scrubbing or the use of a proprietary degreaser. The effectiveness of decontamination should then be assessed by a pull-off-test.

Surface sealing

Porous surfaces should be sealed with a solution of 1 part Nitobond PVA to 15 parts clean water. Where surface porosity is extremely high it may be necessary to increase the concentration to 1 part Nitobond PVA to 10 parts water.

Breeze, foam, slag and other lightweight building blocks are exceptionally absorbent and will require pre-soaking prior to sealing.

Application

Please note: Nitobond PVA should not be used as a bonding agent in continuously wet areas. In such conditions Nitobond SBR is recommended.

Nitobond PVA may be applied by brush or roller as indicated in the following specific applications:

1. As a General adhesive

Bonds asbestos. bricks, carpet, china, concrete, cork, earthenware, glass, laminated plastic, leather, linoleum, plasterboards, polystyrene, renders, roofing felt, stone, textiles, tiles and wood.

After surface preparation, apply a thin film of Nitobond PVA over both faces and allow to become tacky (20 to 30 minutes depending upon temperature). Bring the surfaces firmly together, position as required, wipe of any excess and allow to set for 24 hours. Do not clamp tightly as the Nitobond PVA may be squeezed out.

NB. Nitobond PVA will not bond polythene, PVC or rubber.

2. As a plaster bonding agent

Reduces hacking and keying and will provide an adhesive or mechanical key to receive plaster or render coats of gypsum, lightweight gypsum, or anhydrous plasters, plastering onto tiles.

For gypsum, lightweight gypsum and anhydrous plasters seal as required and prime with a solution of 1 part Nitobond PVA to one part water and allow to become tacky. Then plaster straight onto the tacky Nitobond PVA as per the normal method.

For heavier renderings and cementitious toppings seal and prime as above and then prepare a key coat by mixing 1 part Portland cement, 1 part clean washed sharp sand, gauged to a stiff consistency with 1 part Nitobond PVA to 3 parts clean water. Apply this to the tacky priming coat to an average thickness of 6 mm and stipple with a stiff brush, or otherwise roughen the surface to provide a good mechanical key. Allow to harden and dry thoroughly. Test for adhesion prior to applying render.

For plastering onto glazed tiles, to ensure a satisfactory bond a mechanical key should be provided by light peck hammering prior to sealing, priming and plastering as above.

3. For repairs to concrete

Prepare and seal the surface as required, apply a priming coat of 1 part Nitobond PVA to 1 part water and allow to become tacky. Using the same sand or fine aggregate as in the concrete to be repaired, prepare a stiff cement/sand mix in the proportions 1:2 (or leaner) gauged with 1 part Nitobond PVA to 3 parts clean water. Compact firmly and level out with minimum trowelling.

4. Repairs to Natural or Reconstructed Stone

Prepare and seal the surface as required and apply the priming coat as above. Prepare a stiff mix comprising of Portland cement with original aggregate in as lean a mix as possible 1:6 (or leaner) consistent with the strength requirements gauged with 1 part Nitobond PVA to 3 parts clean water. Compact firmly and level with the minimum of trowelling.

Note: Resurfacing does not normally call for high strengths. Colours can be matched by adding suitable pigments to the mix. Where high strengths are required the Fosroc Technical Department should be consulted for advice on alternative materials.

5. For repairs to concrete and granolithic floors

Prepare and seal the surface as required. Apply the priming coat of 1 part Nitobond PVA to 1 part water, brush well into all crevices and allow to become tacky. The priming coat must never be allowed to dry, if it does re-prime and proceed only when tacky.

Prepare a mix of 1 part of Portland cement to 2.5 parts of clean washed sharp sand, gauged to a stiff consistency with 1 part Nitobond PVA to 3 parts clean water. Then proceed as per the particular application as detailed below:

Repairing Cracks and Holes in Cementitious Floors: Place the mix onto the tacky prime coat, compact firmly and level out to a smooth finish with minimum trowelling. Deep holes and cracks should be filled with conventional concrete onto the tacky priming coat to within 6mm of the surface and “topped” off to above specification whilst the ordinary concrete fill is still green.

Resurfacing of worn concrete and granolithic floors: Place the mix onto the tacky sealing coat and trowel in to the surface using existing exposed aggregate as level thus replacing mortar lost by wear. Treat deep indentations or holes as per above.

Levelling of worn star treads: Place the mix onto the tacky priming coat, compact firmly and level out to a smooth finish with the minimum of trowelling. To impact a nonslip finish to the stair tread, a piece of hessian should be placed onto the newly filled area soon after trowelling and lightly tamped to leave an impression of the hessian.

6. As a bonding agent for tiles

Wood, block, cork, lino and acoustical tiles: Use Nitobond PVA as a general adhesive. If the surface is uneven, the adhesive should be filled as described below under “Polystyrene Tiles.”

Ceramic, concrete, quarry, clay and terrazzo tiles: Seal with a solution of 1 part Nitobond PVA to 5 parts water. Brush well into the surface and allow to dry.

Before bedding tiles in sand and cement give the floor and the base of the tiles a further coat of 3 parts Nitobond PVA to 1 part water. Whilst this is still wet or tacky apply the sand and cement bedding to the base and bed the tiles.

Polystyrene tiles, plaster board and acoustic board: Prepare and seal the surface as required, then using a suitable filler such as plaster, cement, fine sand or sawdust, make a paste with a solution of 1 part Nitobond PVA to 1 part water. Apply this mixture as an adhesive coat to the tiles and surface to be bonded.

7. For bonding granolithic toppings to sub-concrete

Prepare the surface and apply a priming coat of 1 part Nitobond PVA to 1 part water, brush well into all crevices and allow to become tacky. The priming coat must **never** be allowed to dry, if it does then the surface must be reprimed.

Prepare a key coat consisting of 1 part Portland cement to 1 part clean sharp sand gauged to a stiff consistency with a solution of 1 part Nitobond PVA to 3 parts water. Spread over the area whilst the priming coat is still tacky to an average depth of 6 mm then stipple with a stiff brush to form a mechanical key i.e: as rough a surface as possible. Allow to harden thoroughly and check for adhesion prior to laying the granolithic topping.

8. As a primer for overcoating bitumen with oil based paints

Coat the bitumen with a solution of 1 part Nitobond PVA to 1 part water as an anti-bleed priming coat suitable for most oil-based paints.

High temperature working

At ambient temperatures above 35°C, the material should be stored in the shade and cool water used for mixing.

Curing

Nitobond PVA mortars, toppings and renders are cement based. In common with all cementitious materials, they must be cured immediately after finishing in accordance with good concrete practice.

The use of Concure* curing membranes is recommended. In harsh drying conditions, supplementary curing with damp hessian or polythene sheeting is strongly recommended.

Cleaning

Nitobond PVA should be removed from tools, equipment and mixers with clean water immediately after use. Spillages should be absorbed with clean sand or sawdust and disposed of in accordance with local Health and Safety regulations.

Limitations

Nitobond PVA mortars, toppings and renders should not be applied when the temperature is below 5°C and falling. Neither should they be exposed to moving water during application. Exposure to heavy rainfall prior to the final set may result in surface scour. If any doubts arise concerning temperature or substrate conditions, consult the local Fosroc office.

Technical support

Fosroc offers a comprehensive technical support service to specifiers, end users and contractors. It is also able to offer on-site technical assistance, an AutoCAD facility and dedicated specification assistance in locations all over the world.

Estimating

Supply

Nitobond PVA	:	25 and 200 litre drums

Coverage

Sealer coat	:	75m^2 diluted 1 to 15 50m^2 diluted 1 to 10 25m^2 diluted 1 to 5
Primer coat	:	5m^2 diluted 1 to 1
Key coat	:	3m^2 diluted 1 to 3

Note: The coverage figures for Nitobond PVA are theoretical - due to wastage factors and the variety and nature of possible substrates, practical coverage figures will be reduced.

Storage

Shelf life

All products have a shelf life of 6 months if kept in a dry store in the original, unopened bags or packs.

Storage conditions

Store in dry conditions in the original packing. If stored at high temperatures and/or high humidity conditions the shelf life may be reduced. Nitobond PVA should be protected from frost.

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Precautions

Health and safety

Cementitious mortars and slurries modified with Nitobond PVA contain cement powders which, when mixed or become damp, release alkalis which can be harmful to the skin. During use, avoid inhalation of dust and contact with skin and eyes.

Wear suitable protective clothing, gloves, eye protection and respiratory protective equipment. The use of barrier creams provide additional skin protection. In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water.

Nitobond PVA should not come in contact with the skin and eyes, or be swallowed. Ensure adequate ventilation and avoid inhalation of vapours. The use of barrier creams provide additional skin protection. In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water. If swallowed, seek medical attention immediately - **do not** induce vomiting.

Fire

Nitobond PVA is non-flammable.

Additional Information

Fosroc manufactures a wide range of complementary products which include :

- waterproofing membranes & waterstops
- joint sealants & filler boards
- cementitious & epoxy grouts
- specialised flooring materials

Fosroc additionally offers a comprehensive package of products specifically designed for the repair and refurbishment of damaged concrete. Fosroc's 'Systematic Approach' to concrete repair features the following :

- hand-placed repair mortars
- spray grade repair mortars
- fluid micro-concretes
- chemically resistant epoxy mortars
- anti-carbonation/anti-chloride protective coatings
- chemical and abrasion resistant coatings

For further information on any of the above, please consult your local Fosroc office - as below.

*** Denotes the trademark of Fosroc International Limited**

† **See separate data sheet**

Important note

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard Conditions for the Supply of Goods and Service

Al Gurg Fosroc LLC

Post Box 657, Dubai
United Arab Emirates

www.fosroc.com

Head Office
telephone: (+9714) 2858606 **fax:** (+9714) 2859649 **email:** agf@fosroc.com

Regional offices

Dubai, Al Gurg Fosroc	**telephone:** 285 8787	**fax:** 285 2023	**email:** dubai@fosroc.com
Abu Dhabi, Al Gurg Fosroc	**telephone:** 673 1779	**fax:** 673 1449	**email:** abudhabi@fosroc.com
Bahrain, YBA Kanoo	**telephone:** 17735454	**fax:** 17732828	**email:** bahrain@fosroc.com
Kuwait, Boodai	**telephone:** 4817618	**fax:** 4832124	**email:** kuwait@fosroc.com
Oman, Al Amana	**telephone:** 771 5080	**fax:** 771 7554	**email:** oman@fosroc.com
Qatar, Tadmur	**telephone:** 413628	**fax:** 440812	**email:** qatar@fosroc.com

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