



Nitobond® AR(Spl.)

Latex acrylic polymer based cement modifier cum bonding aid

Uses

- For improving and bonding floor toppings, mortars and renders
- As a bonding agent for Renderoc and other cementitious mortars
- Polymer modified mortars and screeds for reinstatement of worn out/damaged concrete

Advantages

- **High adhesion** - Provides excellent bond to concrete, masonry, stone work, plaster and block work.
- **Increased strength** - Improves tensile and flexural properties of mortar.
- **Versatile** - Compatible with all common hydraulic cements
- **User friendly** - application by brush/spray
- **Improves cohesion** - No bleeding and segregation

Description

Nitobond AR(Spl.) is a single component latex acrylic polymer emulsion used as bonding aid cum cement modifier.

Technical support

Fosroc offers technical support service to specifiers, end users and contractors, as well as on-site technical assistance in locations all over the country.

Properties

Appearance	: Milky white liquid	
Solid content	: Exceeds 35%	
pH	: 8 -9	
Specific gravity	: 1.04 @ 27°C	
Mechanical Properties*	Control	Nitobond AR(Spl) mortar
Compressive strength @ 28days (ASTM C109) (N/mm²)	18-20	24.0
Flexural strength @28 days (ASTM C348)	4.0	6.0
Adhesion to concrete (ASTM C882) (Slant shear)	3.5	5

Mix proportions:

As a cement modifier :

1 litre Nitobond AR(Spl) : 5 kg cement : 15 kgs graded quartz sand.

As a bonding agent :

0.5 part cement : 1 part Nitobond AR(Spl) by weight.

Application instructions

Surface Preparation

The object of the surface preparation is to achieve a clean sound surface with a good mechanical key. All substrates should be cleaned and free of dust, plaster, oil, paint, grease, corrosion deposits, and any other deleterious substances. Laitence should be removed by mechanical means. Oil or greasy deposits should be removed by suitable means. All surfaces so treated should be thoroughly washed with clean water. Smooth substrates must be mechanically roughened e.g. by scabbling, needle gun or grit/ sand blasting to provide a mechanical key.

Concrete repairs : Any reinforcing steel in the repair area should be exposed around its full circumference and cleaned to remove all loose scale and corrosion deposits and then primed with Nitocote AP35, acrylic primer. All surface dust and debris shall be removed.

Priming

Immediately before priming, the concrete substrate should be thoroughly dampened with water and any excess being brushed off. Scrub Nitobond AR(Spl.) into the substrate. Puddling of the emulsion to be avoided. The repair mortar/ topping should be applied whilst the primer is still tacky. However a satisfactory bond can be achieved upto 15 mins. after application at 30°C.

In order to obtain a smooth consistency mortar, the cement and sand must be dry mixed and then poured into the liquid with the required amount of water in the prescribed mix proportions.

Additional Guidance

Edges shall be cut back to avoid feather edging and all surfaces including edges shall be primed using Nitobond AR(Spl.).

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All applications shall be wet on wet. For best results Nitobond AR(Spl.) should be allowed to become tacky. If the bonding agent is allowed to dry for more than 15 minutes at 30° C initial 'grab' to the repair mortar will be reduced. Therefore, the use of temporary shuttering is recommended. Water content of the mortar should be kept to the minimum necessary.

For consistent results, the use of clean, dry sand is recommended. Where the use of wet sand is unavoidable, the quantity of water to be added must be reduced.

Mortars shall be cured using Nitobond AR(Spl.) to prevent rapid drying out. Uncured mortar shall be protected from frost and rain. Mortar shall not be retamped after initial set.

Minimum application temperature for Nitobond AR(Spl.) is 10°C, but the mortar should not be applied if the temperature is expected to fall.

For permanently immersed conditions local Fosroc office shall be consulted.

Limitations

As a bonding agent

Nitobond AR(Spl.) may exhibit less overlay time at higher temperature. In such cases, overlay mortar shall not be applied when Nitobond AR(Spl.) is totally dry.

Nitobond AR(Spl.) when used as bonding agent cannot act as a barrier coat against ingress of chloride ions from the substrate.

Equipment cleaning

Immediately after use, wash all tools with clean water.

Estimating

Packaging

Nitobond AR(Spl.) is supplied in 1, 5 and 20 litre plastic containers.

Coverage

As a cement modifier

Approximately 6 - 8m²/ litre depending on substrate. 21kg of mixed polymer mortar (1 part polymer, 5 parts cement & 15 parts quartz sand) will yield approximately 10 -11 litres.

As a bonding agent

Approximately 3 - 4 m²/litre* depending on substrate conditions. (* 0.5 part cement : 1 part of Nitobond AR (Spl) by weight.

Storage

Shelf life

Nitobond AR(Spl.) has a shelf life of 12 months at 30°C. Nitobond AR(Spl.) should be protected from frost.

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Precautions

Health & Safety instructions

Nitobond AR(Spl.) is non toxic. However it should never be ingested and if it comes into contact with eyes, it shall be washed immediately with plenty of water and medical treatment shall be sought immediately.

Nitobond AR(Spl.) is slightly alkaline. Skin contact should be avoided. Gloves and protective clothing should be worn.

Fire

Nitobond AR(Spl.) is non flammable.

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Important note :

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INDIA/2005/0918/D