saveto Construction Materials

vetonit Product Data Sheet

Vetobond PB434

Polymeric bonding agent, waterproof mix enhancer & primer

Uses

- Production of high-strength waterproof renders, screeds, cement slurries, and mortars.
- Enhancing cementitious mixes such as plasters, tile adhesives, screeds,...etc.
- As a primer and surface sealer for plasters and repair mortars.
- Enhancement of cementitious mixes to freeze and thaw cycles.
- Bonding old to new concrete.

Product Description

Vetobond PB434 is a modified styrene-butadiene rubber emulsion that is supplied as a ready-to-use white liquid. It is designed to improve the quality of site-batched cementitious mortars and slurries. When used as a primer, it works to seal the substrate and enhance the bond to mortars and plasters. Being resistant to hydrolysis, it is ideal for internal and external applications in conjunction with cement.

Advantages

- Factory controlled single component easy to use and easily gaged.
- Water emulsified, environment friendly product.
- Odorless and non flammable.
- Resistant to hydrolysis, used externally and internally.
- Improves mortars to provide waterproof repairs, renders and toppings which are highly resistant to freeze/thaw cycling
- Improved tensile and flexural properties allowing thin applications.
- Excellent bond to concrete, masonry, stonework, plaster and block walls.
- Chloride free.

Technical Data

Vetobond PB434	Typical Values	
Appearance	Milky liquid	
Density @ 25°C	1 kg/Ltr approx.	
Drying Time @ 25°C	1 - 2 hours	
Chloride content	Nil	
Mix Enhancement	Result	Control
Compressive Strength BS6319	35 N/mm^2	28 N/mm^2
Tensile Strength EN13286	3.5 N/mm^2	2.5 N/mm^2
Flexural Strength BS6319	9 N/mm^2	8 N/mm^2
Slant Shear Bond BS6319	20 N/mm^2	2.5 N/mm^2

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Usage Instructions

Surface Preparation

Saw cut the extremities of the repair locations to a depth of at least 10 mm to avoid feather edging and provide a square edge. Break out the complete repair area to a minimum depth of 6 mm up to the sawn edge. Clean the surface and remove any dust, unsound or contaminated material, plaster, oil, paint, grease, corrosion deposits, or algae. Breaking out is not required. Roughen the surface and remove any laitance by light scabbling or grit blasting.

Remove oil and grease deposits by steam cleaning, detergent scrubbing, or by the use of a proprietary degreaser. A pull-off test should then assess the effectiveness of decontamination.

Expose fully any corroded steel in the repair area and remove all loose scale and corrosion deposits; clean steel to a bright condition paying particular attention to the back of exposed steel bars. Grit blasting is recommended for this process.

If corrosion has occurred due to chlorides' presence, the steel should be high-pressure washed with clean water immediately after grit blasting to remove corrosion products from pits and imperfections within its surface.

Substrate Priming

Soak the substrate thoroughly with clean water and remove any excess before commencement. Prepare a slurry primer with 1 volume of Vetobond PB434 to 1 volume of clean water to 3 volumes of fresh cement. To obtain a smooth consistency, blend the cement slowly into the premixed liquids. Stir the slurry primer frequently during use to offset settlement.

Scrub the slurry primer well into the surface of the concrete. Avoid applying too thickly and avoid 'puddling.'

The repair mortar, topping, or render must be applied to the wet slurry primer. If the slurry primer dries before applying the mortar, it must be removed and the area reprimed before continuing.

In exceptional circumstances, e.g., where a substrate/ repair barrier is required or where the substrate is likely to remain permanently damp, contact Saveto Technical Support.

Mixing

Mix Vetobond PB434 mortars thoroughly. A forced-action mixer is essential.

Mixing in a suitably sized drum using an approved spiral paddle at a slow speed (400/500 rpm) heavy-duty drill is acceptable for occasional use.

A wide range of mix designs is achievable using Vetobond PB434. Typical designs are detailed below:

1. Patching and repair mortar (Recommenced thickness 6mm to 40mm)

   50 kgs Ordinary Portland Cement
   150 kgs grade C/M sharp sand
   10 liters Vetobond PB434
   8 liters (approximately) clean water

2. Heavy-duty floor screed (Recommended thickness 10mm to 40mm)

   50 kgs Ordinary Portland Cement
   75 kgs 3 mm to 6 mm granite chips
   75 kgs grade C/M sharp sand
   10 liters Vetobond PB434
   6 liters (approximately) clean water

The screed should be of a semi-dry cohesive consistency.

3. Render (Recommended thickness 6mm to 9mm)

   50 kgs Ordinary Portland Cement
   150 kgs grade C/M sharp sand
   10 liters Vetobond PB434
   6 liters (approximately) clean water

The render should be of a semi-dry cohesive consistency.

4. Bonding mortar for slip bricks, tiles, etc.:

   50 kgs Ordinary Portland Cement
   125 kgs grade C/M sharp sand
   10 liters Vetobond PB434
   7 liters (approximately) clean water

Adjust water to give a firm mortar. For fine joints, use grade M/F sand. Support where necessary until the mortar is set.

The recommended thickness 6mm to 40mm..

Note: The mix designs are based on the use of dry sand and aggregate. Adjust the water demand relative to the moisture content of the sand and aggregate used. It should also be noted that, due to the frequent inconsistencies of site stored materials and variable conditions, actual results may differ from those published above.

Weigh the cement, sand, and, where required, aggregate into the mixer and dry blend together for one minute. With the machine in operation, add the pre-mixed Vetobond PB434 and clean water. Continue mixing for 3 minutes to ensure complete dispersal into the sand and cement. Make any small adjustment to the quantity of clean water but do not significantly exceed the amount shown above. Keep adding water to a minimum. Continue mixing up to a maximum of 5 minutes until achieving a smooth and fully homogeneous consistency with the required workability and application properties. Allowance must be made for the moisture content of the sand and aggregate, particularly where they are stored on site.