

K2 BOND SBR

STYRENE-BUTADIENE-RUBBER BASED POLYMER BONDING AID AND ADDITIVE FOR MORTARS AND SCREEDS.



BENEFITS

- Single component liquid which improves cohesion and work ability and easily gauged as required
- Provides waterproof repairs, renders and toppings which are resistant to freeze/thaw cycling
- Good tensile and flexural and UV resistant properties facilitate even thin applications
- Superior bonding to concrete, masonry, stonework, plaster, block board, slip bricks, ceramic tiles etc
- Free from chloride admixtures. Improves the quality of site-batched cementitious mortars and slurries
- Hydrolysis resistant and is ideal for internal and external applications with cement

PROPERTIES

Lab test results observed by assessing the mechanical properties of a 3:1 = sand:cement mortar containing K2 Bond SBR in the proportions 10 liters per 50 kg cement against a 3:1 = sand:cement mortar at 28 days - air cured.

Compressive strength : 32 N/mm²

Tensile strength : 5.0 N/mm²

Flexural strength : 10.9 N/mm²

Slant shear bond : 38 N/mm²

Chemical resistance : Cementitious materials have limited chemical resistance. K2 Bond SBR added to cement mortars reduces permeability and hence minimizes the damage by aggressive chemicals, acid, gases and water.

MORTAR DESIGNING

Polymer Modified Mortar using K2 Bond SBR should always be subject to a minimum applied thickness of 6 mm. K2 Bond SBR polymer modified mortars can be applied in sections of up to 40 mm thickness in horizontal locations and 15 mm in vertical locations, without form work. For overhead applications the thickness is dependant on substrate profile.

Preparation

Joints, Fillets, Wattas and Plastic cracks should be opened to a depth of at least 10 mm to avoid feather-edging and to provide a square edge.

Minimum depth of 6 mm is ensured in the remaining area, up to the previously formed edge.

Clean the surface and remove any dust, unsound or contaminated material, plaster, oil, paint, grease, corrosion deposits or algae. Oil and grease deposits should be removed by steam cleaning, detergent scrubbing or a degreaser. Where chipping out is not required, roughen the surface and remove any latency by light scabbling or grit-blasting. Assess the magnitude of decontamination by a pull-off test.

Priming

Soak thoroughly the substrate with clean water and remove excess before application. A primer slurry should be prepared with 1 volume K2 Bond SBR to 1 volume clean water to 3 volumes fresh cement (1:1:3). To obtain a smooth consistency, the cement should be blended slowly into the premixed liquids. The primer slurry should be stirred frequently during use to offset settlement. The primer slurry should be scrubbed well into the surface of the substrate, to avoid 'ponding'. The repair mortar, topping or render must be applied on to the wet slurry primer. If the slurry primer dries before application of the mortar, it must be removed and the area reprimed.

For repairing reinforcement

Expose fully any corroded steel and remove all loose scale and corrosion deposits. Steel should be cleaned by using grit blasting process. Where chloride related corrosion is seen, the steel should be washed with high-pressured clean water immediately after grit-blasting to remove corrosion products from pits and imperfections within its surface.

Priming of Reinforcing steel

Apply one full coat of zinc rich primer to any exposed steel reinforcement and allow to dry. If required, a second application should be made and, again, allowed to dry before continuing.

Procedure for Mixing

K2 Bond SBR mortars should be thoroughly mixed in a mixer with a 400/500 rpm speed. Properly weighed quantities of cement, sand and aggregates, if required, should be dry blended for 1-1.5 minutes in the mixer. Immediately, add the mixed K2 Bond SBR and clean water into the mixer. Continue mixing for 3 minutes to make homogeneous dispersal into the sand and cement. Adding further water should be minimal. Continue mixing up to a maximum of 5 minutes until a smooth consistency is achieved with the required work ability and application properties.

Application Methodology

K2 Bond SBR mortars, toppings and renders must be sufficiently trowel compacted on the primed substrate layer. Exposed steel reinforcement should evenly and completely be applied with the mortar. The minimum thickness of applied K2 Bond SBR mortar should be 6 mm and up to 40 mm. Avoid sagging with higher thickness. If form work is used, it should have properly sealed faces to ensure that no water is absorbed from the repair material.

In cold conditions below 5°C, the use of warm water will accelerate strength gain. Do not apply if the temperature is below 5°C. At temperatures above 35°C, the material should be stored in the shade and cool water used for mixing. Do not expose K2 Bond SBR application to moving water and heavy rain fall.

Finishing

K2 Bond SBR mortars can be finished with a steel, plastic or wood float, or by a damp sponge technique, to achieve the desired surface texture. The completed surface should not be overworked.

Curing

K2 Bond SBR mortars, toppings and renders are cement based and must be cured immediately after finishing in accordance with good concrete practice. K2 Bond SBR mortar repairs are extremely durable and will provide excellent protection to the embedded steel reinforcement within the repaired locations.

Cleaning

K2 Bond SBR should be removed from tools, equipment and mixers with clean water immediately after use. Cured material can only be removed mechanically.

Packing;

K2 Bond SBR is supplied in 1 L, 5 L, 20 L and 200 liter drums.

Coverage

K2 Bond SBR : Approx. 2 to 3 sqmt/liter as primer slurry. Coverage dependant on sital conditions.

Shelf life

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

Health and safety

K2 Bond SBR modified cementitious mortars and slurries 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. In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed, seek medical attention immediately.

Fire

K2 Bond SBR is non-flammable.

TECHNICAL SUPPORT

The company provides a technical service supported by a team of specialist applicators in the industry

Important note :

Jay Chemical Industries Ltd products are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Whilst Jay Chemical Industries Ltd endeavors to ensure that any advice, recommendation specification or information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products whether or not in accordance with any advice, specification, recommendation or information given by it or its applicators.



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