

CHEMBOND SBR

BONDING AGENT AND WATERPROOFING ADMIXTURE

DESCRIPTION

CHEMBOND SBR is co-polymer latex specifically designed for use with cement based mixes.

It is used in mortar and concrete as an admixture to increase water and abrasion resistance and durability. It is used with cement as a reliable water resistant bonding agent between old and new concrete.

FIELDS OF APPLICATION

- Bonding Agent
- Concrete repair
- Floor screeds and toppings
- External rendering
- Fixing brick slips and tiles

FEATURES AND BENEFITS

CHEMBOND SBR modified cement based mixes have the following advantages:

- Greatly increased flexural strength
- Tensile strength increased
- Increased Bond Strength
- Greatly reduced shrinkage (with appropriate aggregate)
- Prevents bleeding
- Lower water-cement ratio
- Increased durability and toughness, improved abrasion resistance. Good frost, abrasion resistance and resistance to water-borne salt penetration.
- Resistant to many chemicals and oils
- Excellent adhesion to steel and concrete. Sticks well to brick, glass, asphalt, wood, expanded polystyrene and most building materials.
- Enhanced corrosion protection
- Similar thermal expansion and modulus properties to concrete
- Can be used with potable water (WRC approved)

TECHNICAL INFORMATION

Bonding Slurry

Wet down absorbent surfaces, such as concrete and brick, so that they are damp but surface dry when

the bonding slurry is applied. Prepare a bonding slurry of approximately 1.5 parts of OPC to 1 part of **CHEMBOND SBR** by volume.

These proportions can be adjusted to obtain a suitable mix consistency for any particular application, within the range 1:1 to 1:2 **CHEMBOND SBR** : cement. Mix the **CHEMBOND SBR** and cement together by using a paddle fitted into a slow-speed electric drill, to form a smoother lump-free mix. The normal method of application is by stiff brush scrubbing well into the surface, taking care to ensure complete coverage.

A typical single slurry coat has an average thickness of 0.3 to 0.5mm and thickness' significantly above this should be avoided. If a second coat is necessary it should be applied at right angles to the first. Never apply more than can be comfortably over-screeded/rendered within 15 TO 20 minutes.

Cement

CHEMBOND SBR is compatible with all types of OPC, sulphate resisting and high alumina cements. However with high alumina cements hardening will be delayed. (For use with other cements, contact **CHEMI TECH** Technical Services Department for advice).

Water

The strong plasticizing action of **CHEMBOND SBR** greatly reduces the water requirements for any given workability.

Mixing

Mixing should preferably be carried out in a forced action mixer. Hand batching is also permissible when the total weight of the mix is less than 25kg. Charge the mixer with the required quantity of sand and cement and pre-mix for approximately one minute. Pour the desired quantity of **CHEMBOND SBR** and mix for about 30 seconds only, to minimize air entrainment. Slowly add water, whilst still mixing, until required consistency is obtained. (Stop mixer when testing consistency).

The total mixing time after adding the **CHEMBOND SBR** should not exceed two minutes. Owing to the strong plasticizing properties of **CHEMBOND SBR**,

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rapid thinning can occur - avoid adding excessive water.

APPLICATION:

Rendering to vertical surfaces. Apply the bonding slurry to the prepared surface and apply the render while the bonding slurry is still wet or tacky, generally within 15 minutes.

It is preferable to apply **CHEMBOND SBR** modified mortars in coats to a maximum thickness of 6mm per coat, as greater thickness' can lead to slumping; however, several coats can be applied in fairly rapid succession, usually within 15 to 30 minutes. Thicker coatings can be applied providing suitable formwork is used. Close the surface using a wooden float or steel trowel.

Alternatively, scratch the first coat of render after application and allow to dry overnight before applying the second coat. This technique is preferred for rendering where the drying rate is low but not recommended when waterproofing. Another method is to allow the first coat of render to dry overnight, and then apply a further slurry coat before applying the second coat of render.

Screeds, patches, etc., based on **CHEMBOND SBR** modified cements, can be laid to any thickness from 40mm down to 6mm minimum. After mixing, the **CHEMBOND SBR** modified mix should be placed over the still wet bonding slurry, well compacted and struck off to level. It may then be trowel to the required finish using a wooden float or steel trowel.

Note: Whenever screeds are being laid over existing concrete surfaces, it is important that expansion joints in the sub-floor are carried through the **CHEMBOND SBR** modified mix. This can be done by fitting a temporary timber batten wrapped in a layer of polythene.

COVERAGE:

When using as a bonding coat 1 liter of **CHEMBOND SBR** will typically produce enough slurry to coat 3 sqm of substrate dependent on surface texture and thickness applied. For all normal use the standard dose of 10 liters of **CHEMBOND SBR** per 50 kg Portland Cement is adequate.

For extreme conditions and/or where adhesion, waterproofing, water vapor resistance or chemical resistance are critical, the dosage should be increased to 15 liters of **CHEMBOND SBR** per 50kg Portland

Cement. For this higher dosage, the extra water addition required is low and, therefore, use of wet aggregate may result in excessive workability.

CURING/AFTER TREATMENT:

Correct curing of **CHEMBOND SBR** modified mixes is important. Moisture cure for at least one day and then allow to dry out slowly.

CLEANING:

All tools should be cleaned with water immediately after use. If delayed, use of soap and coarse wire wool may help.

PACKAGING:

CHEMBOND SBR is supplied in 210 liters drums.

STORAGE:

Stir before use. Protect from frost, **CHEMBOND SBR** may be permanently damaged by freezing, particularly if thawed quickly.

SHELF LIFE:

Up to one year when stored under normal conditions and temperatures (5°C - 40°C)

HEALTH AND SAFETY:

For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted. The following general comments apply to all products. As with all chemical products, care should be taken during use and Storage to avoid contact with eyes, mouth, skin and foodstuffs, (which may also be tainted with vapor until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.