

# Permagard SBR Bonding Agent

## Description

SBR Bonding Agent is a high performance water resistant bonding agent and admixture for adding to sand/cement renders, cementitious flooring screeds and repair compounds. It can be used externally and internally in areas of intermittent or continuous water contact. It is especially suitable for renders and floors with high abrasion resistance and for patching and bonding onto substrates of low suction.

## Benefits

- Greatly increased flexural and tensile strength.
- Allows reduction in water content
- Greatly reduced shrinkage
- Increased durability and toughness, improved abrasion resistance.
- Good frost resistance and resistance to water-borne salt penetration.
- Resistant to many chemicals and to mineral oils.
- Excellent adhesion to steel and concrete. Sticks well to brick, glass, asphalt, wood, expanded polystyrene and most building materials.
- Enhanced corrosion protection.
- Proven performance. 25 years +

## Preparation

All surfaces must be load bearing and free of material that could interfere with adhesion (e.g. parting agents, loose material, dust, sanding, efflorescence, soiling). The surface of the substrate should be dry or matt damp.

## Mixing

Mixing should preferably be carried out in a forced action mixer. Hand batching is only 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 SBR Bonding Agent and mix for about 30 seconds only, to minimise 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 SBR Bonding Agent should not exceed two minutes. Owing to the strong plasticising properties of SBR, rapid thinning can occur - avoid adding excessive water.

## Application

### Bonding Slurry

Dampen down absorbent surfaces, a matt damp with no standing water is required before application. Prepare a bonding slurry of approximately 1-2 parts of OPC to 1 part of SBR Bonding Agent neat by volume. 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 screeded/ rendered over within 15 minutes.

### Standard render over dense background

1 part OPC: 4.5 parts moist washed sand: 0.2 parts SBR Bonding Agent: water as required (i.e. 10 litres of SBR Bonding Agent per 50kg of cement). Apply render onto tacky primer. The first coat should be limited to a thickness of 7mm. Scratch the surface and leave to set before applying the second coat of similar thickness. For added protection leave the first coat overnight then apply a second bonding coat before the second coat of render is applied.

The final coat should be trowelled/ floated to a smooth finish as the work proceeds. In severe drying conditions, render should be kept damp for up to two days to allow cement to cure.

### Waterproof render above ground, over dense background

1 part OPC: 3 parts moist washed sand: 0.28 parts SBR

Bonding Agent: water as required (i.e. 14 litres of SBR Bonding Agent per 50kg of cement). Apply as above.

### **Concrete repair**

Apply a bonding coat as above. 1 part OPC: 2.5 parts moist washed sand: 0.3 parts SBR Bonding Agent: water as required (i.e. 15 litres of SBR Bonding Agent per 50kg of cement).

### **Water resistant primer**

Dilute SBR Bonding Agent 1:3 with fresh clean water and apply to surface.

### **Flexible additive for cement based tile adhesive**

Dilute SBR Bonding Agent 1:1 with fresh clean water and mix with powder. Please note will slightly delay the setting period.

## **Application Notes**

Do not apply to frost filled surfaces or when the temperature is 5°C and falling or 25°C and rising.

## **Coverage**

When using as a bonding coat 1 litre of SBR Bonding Agent will typically produce enough bonding slurry to coat 2.5 – 3m<sup>2</sup> of substrate dependent on surface texture, porosity and thickness applied. For all normal use the standard dose of 10 litres of SBR Bonding Agent per 50 kg Portland Cement is adequate. For extreme conditions and/or where adhesion, waterproofing, water vapour resistance or chemical resistance are critical, the dosage should be increased to 15 litres of SBR Bonding Agent 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.

## **Cleaning**

Clean equipment immediately after use with water. Splashes and contact with non-target surfaces should be removed immediately as it will be extremely difficult to remove once dry.

## **Storage and Shelf Life**

SBR Bonding Agent has a shelf life of 12 months in the original container with tightened lid. Store at a temperature of 5°C to 25°C frost free.

## **Packaging**

5 litre and 25 litre containers.

## **Health and Safety**

Please refer to latest health and safety data sheet.

## **Limitations**

SBR Bonding Agent is not suitable for coloured renders due to its poor UV resistance which may result in discolouration of the render. Do not over mix. Do not mix with other additives in the same gauging water. Mixes given are for use only as a guide and so not constitute a specification due to potential variances in actual materials used and site conditions.



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Issued: 16/05/17