

NUFIX SBR

Bonding & Waterproofing Additive

Description

Nufix SBR is a styrene butadiene rubber latex designed to upgrade the bonding and waterproofing properties of cement/sand based renders, screeds and mortars. This is achieved by increasing tensile and flexural strengths which allows high strength screeds to be laid down to 10mm thick. In addition, screeds and renders can be waterproofed and their resistance to abrasion, frost, water vapour transmission and certain chemicals is greatly improved. The improvement in physical properties is generally superior to those obtained with other modifying agents and Nufix SBR will not saponify even in wet conditions. In certain applications Nufix SBR provides a simple, ideal, cost saving alternative to epoxy and polyester resin based systems.

Applications

- Water resistant renders and screeds.
- Bonding new concrete to old.
- Chemical and abrasion resistant screeds ideally suited for agricultural uses.
- Repair and patching of concrete floors.
- Industrial floors and screeds.
- Concrete repair mortar when gauged with sand and cement.
- Production of water resistant adhesives for brick slips, tiles, artificial stone, kerbs, copings etc.
- Lining for effluent tanks and ducts etc.

Technical Information

Polymer Type:	Styrene Butadiene Latex
Solids Content:	48%
S.G.:	1.01
pH	10.5

Surface Preparation

All surfaces must be clean and structurally sound. Oil and grease must be removed. This can be achieved using Desolve degreaser. For best results the surface of the concrete should be mechanically scarified or scabbled although other methods including sandblasting and acid etching may be employed. For acid etching we recommend Chemclean acid cleaner. It is essential that the surface is thoroughly brushed and residues washed away.

Placement Procedure

To ensure temperature and porosity of the concrete surface is controlled, it is necessary to keep it dampened with water for one hour prior to application.

Priming: Use a mix consisting of 2 parts O.P.C. mixed with 1 part SBR gauging liquid (3 parts Nufix SBR: 1 part Water) by volume. Mix into a smooth paste. This primer is then brushed onto the prepared surface after ensuring there is no free-standing water, using a stiff brush or broom. It is essential that the topping is applied whilst the priming coat is still tacky. If it is allowed to dry out then the primer must be removed and the surface must be reprimed using the same procedure.

Coverage Priming Coat: 2.5 - 3.5 m² per litre.

N.B. It is essential that prior to the application of any topping containing Nufix SBR the above procedure is carried out.

Mix Design: Aggregate should be washed sharp sand, free of excessive fines. As the Nufix SBR acts as a plasticiser, workability is increased but there is a slight retardation of setting time. In cold weather or where a faster set is required then rapid hardening Portland Cement is recommended. Do not use other admixtures or cements without reference to the manufacturer. Mixes incorporating Nufix SBR are slightly darker in colour than ordinary mixes.

Mixing: As for normal concrete or mortar but replacing the gauging water wholly or partially with Nufix SBR. Normal curing procedures should be employed.

For the majority of applications the following mortar can be used as a render or screed after the surface has been primed as previously described.

General Purpose Mortar/Screed

50 kg	Ordinary Portland Cement (O.P.C.)
150 kg	Washed sharp sand (Zone 2)
9 litres	Nufix SBR
9 litres	Water (approximate, depending on water content of aggregate)
Yield:	0.1 m ³

Thickness dependent on application but 13mm is normal. On vertical surfaces this is built up in two applications, normal time between applications is 5 hours but this is dependent on temperature.

Where more than one coat is applied ensure that the intermediate coats are hatched to provide a mechanical key. If the surface dries out completely then the surface should be reprimed.

Internal And External Waterproof Renders

Surface preparation is as previously described. Two priming coats should be applied ideally at right angles to one another. The second coat to be applied immediately after the first coat has dried, approximately 30 minutes.

Thickness of each sealing coat should not exceed 1.5mm or crazing may occur. Allow the two priming coats to dry out completely for a minimum period of 48 hours after which time the surface is again primed and the general purpose mortar applied while the primer is still tacky. Minimum thickness 13mm. On vertical surfaces this is built up in two applications in 5 hours. Where more than one coat is applied ensure that the intermediate coats are "hatched" to provide a mechanical key and if the surface dries out completely then the surface should be reprimed.

Heavy Duty Floor Screed Minimum Thickness 20mm

50 kg	Ordinary Portland Cement (O.P.C.)
87.5 kg	3 - 5mm Granite Chips
87.5 kg	Washed Sharp Sand
10 litres	Nufix SBR
6 litres	Water (approximate)

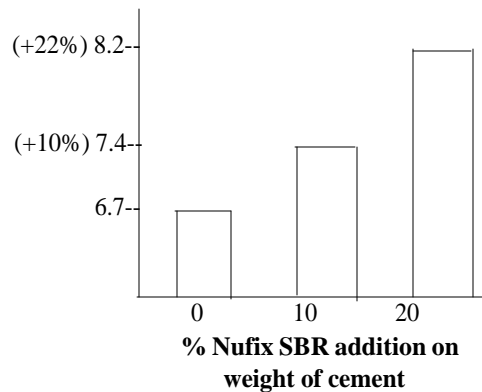
For screeds over 25mm thick the Nufix SBR may be reduced to 6 litres and the water content adjusted accordingly.

Where special applications are involved, consult Nufins Technical Department for advice.

Resistance Of Nufix SBR Renders/Screeds To Following Chemicals

10% Potassium Hydroxide	Good
10% Magnesium Sulphate	Good
5% Lactic Acid	Good
10% Sucrose Solution	Good
'Silagic Acid'	Good
Urine	Good
Blood and Animal Waste	Good
20% Ammonium Nitrate	Fair
10% Sodium Hydroxide	Fair
5% Hydrochloric Acid	Fair
10% Calcium Chloride	Poor
Petroleum Spirit	Poor
Organic Solvents	Poor

Flexural Strength Improvement



Packaging

Nufix SBR is available in 5 litre, 25 litre and 200 litre drums.

Storage

Store at moderate temperatures and protect from frost.

Health & Safety

Nufix SBR does not present any undue hazard, however, the normal standards of hygiene should be observed and any material should be washed from the skin with water before it dries.

Limitations

Should not be used in conjunction with cementitious materials below 5 °C.

Technical Support

Through our technical department and laboratories we can offer a comprehensive service to specifiers and contractors.

Technical representatives are available throughout the UK to provide further information and arrange demonstrations.



Kingston House, 3 Walton Road, Pattinson North, Washington, Tyne & Wear, NE38 8QA, United Kingdom.
 TEL: +44 (0) 191 416 8360 FAX: +44 (0) 191 415 5966 W: www.nufins.com E: info@usluk.com

The information and/or specifications contained herein or in our literature or given by Nufins, its employees, distributors, agents or representatives with regard to its product or their use or application are given in good faith, but no liability is accepted for any loss or damage (including direct or consequential loss or loss of profits) from the use of products because Nufins has no control over how its products are used and applied.