

Nufix SBR

Bonding & Waterproofing Additive

Description

Nufix SBR is a styrene butadiene rubber latex designed to upgrade the bonding and waterproofing properties of cementitious renders, screeds, mortars and concretes. By increasing durability and tensile and flexural strengths, high strength screeds may be laid as thin as 10mm. In addition, screeds and renders can be waterproofed, greatly improving their resistance to abrasion, frost, water vapour transmission and chemical attack. The improvements in physical properties imbued by Nufix is superior to those obtained with other modifying agents, in addition Nufix will not saponify even in wet conditions. In certain applications Nufix SBR provides a simple, easy top use and cost saving alternative to epoxy and polyester resin based systems.

Advantages

- Easy to use.
- Greatly improves adhesion to substrate.
- Waterproofing cementitious systems.
- Reduces shrinkage cracking.

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%
Standard gravity	1.01
Viscosity	35cps
pH	10.5

Surface Preparation

All surfaces must be clean and structurally sound. Oil and grease must be removed. This can be achieved by using *Desolve*. For best results the surface of the concrete should be mechanically scarified or scabbled, although other methods including sandblasting may be employed.

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 OPC mixed with 1 part SBR gauging liquid (3 parts SBR with 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 surface re-primed using the same procedure.

Coverage Priming Coat: 2.5-3.5m² 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:

Aggregates should be washed sharp sand, free of excessive fines. As the Nufix SBR acts as a plasticiser, workability is increased and 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 per normal concrete or mortar but replacing the gauging water wholly or partially with Nufix SBR. Normal curing procedures should be employed.

General Purpose Mortar/Screed

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.

50kg	OPC
150kg	Washed sharp sand (zone2)
9 Litres	Nufix SBR
9 Litres	Water
Yield	0.1m ³

Thickness dependant on application but 13mm is normal. On vertical surfaces this is built up in two application, normally time between applications is 5 hours but this is dependant 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 re-primed.

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 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 re-primed.

Heavy Duty Floor Screed

Minimum thickness: 20mm

Yield: 0.1m³

50kg	OPC
87.5kg	3-5mm Granite Chips
87.5kg	Washed sharp sand (zone2)
10 Litres	Nufix SBR
6 Litres	Water

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

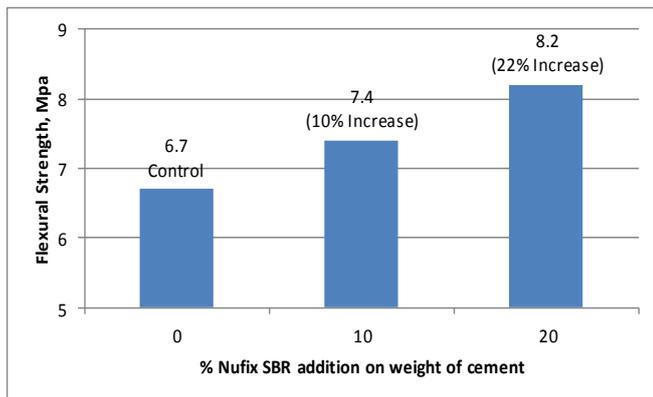
Where special applications are involved, consult Nufins Technical Department for advice.

Chemical Resistance of Nufix SBR Renders & Screeds.

10% Potassium Hydroxide	Good
10% Magnesium Sulphate	Good
5% Lactic Acid	Good
10% Sucrose Solution	Good
Silagic Acid	Good
Urine	Good
Blood & 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 units.

Storage

Store in cool dry conditions and protect from frost.

Health & Safety

Nufix SBR does not present any undue hazard and is non-toxic. 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 material 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 to provide further information and arrange demonstrations.

