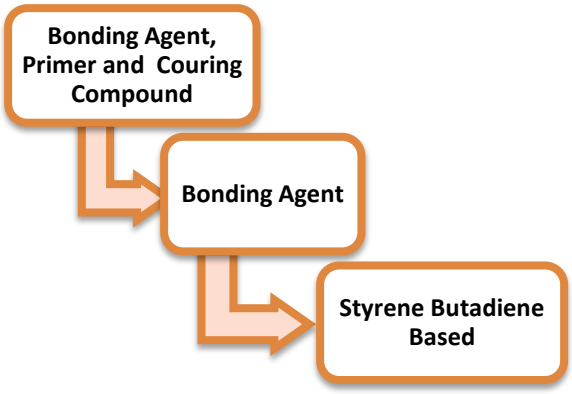
NASA SBR 1000

NASA SBR 1000 – 1&5&18 Ltrs – ASTM

Liquid polymer bonding agent for cement mixes and concrete repairs

FAMILY TREE



PRODUCT DESCRIPTION

Single component, styrene butadiene rubber latex bonding agent. NASA SBR 1000 is designed to improve the physical properties of cement mixes and slurries.

FIELD OF APPLICATION

NASA SBR 1000 is ideally designed for use in the following applications:

- Bonding of new to old concrete when used as a slurry coat.
- To produce polymer modified screeds and floor toppings.
- To produce a mechanical key prior to rendering of various plaster mixes on concrete, brick and block surfaces.
- To produce a repair mortar for patching of honeycombed concrete, internally and externally.
- To produce waterproof renders.

PROPERTIES

• Chloride free.	• Bond many types of construction materials.
• Successfully increases the bonding/adhesion of cement mixes.	• Good freeze/thaw resistance.
• Effective plasticizer giving improved workability and cohesion.	• Reduces shrinkage and cracking in repair and screeding mixes.
• Excellent waterproof additive which helps produce waterproof renders, screeds and toppings.	• Improved mechanical and physical properties by increasing tensile, flexural and adhesive strengths.

PREPARATION

Working Conditions	:	5° C to 45°C
Tools / Equipment	:	Roller or Brush.
Substrate	:	The substrate should be sound, clean and free from contamination. Surface laitance should be removed by acid etching. Exposed steel reinforcements should be grit blasted or wired brushed to a bright finish to insure it is clean of all surface contaminants. For patch repair, cut back the edges of the repair areas to a minimum of 10 mm depth to avoid thin repair thicknesses. Presoak substrates with water prior to commencing the repair.

MIXING

Process : In general, NASA SBR 1000 should be added and mixed with the clean water prior to dry materials for better dispersion.

1) As a bonding agent slurry: The recommended mix to produce slurry consistency can be achieved by mixing Nasa SBR 1000: 1 clean water: 2 OPC cement by volume.

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2) As a bonding and waterproofing additive for site mixed floor screeds, renders, concrete repair and floor patching: The following table shows the mix designs proposed for the reinstatements of old floors, general purpose patch repair mortar and new floor screeding.

Application	The Added Amount of NASA SPR 1000
Wells Plastering	(10 – 12) ltrs/ 50 m^3 cement
Rough Plastering	(8 – 10) ltrs/ 50 m^3 cement
Fine Plastering	(8 – 10) ltrs/ 50 m^3 cement
Concrete Mixtures in Slabs	(10 – 12) ltrs/ 50 m^3 cement
Concrete Mixtures in Foundations	(13 – 15) ltrs/ 50 m^3 cement
Stone Grout	(6 – 8) ltrs/50 m^3 white cement
Internal Tile Grouts	(3 – 4) ltrs/ 50 m^3 cement
External Tile Grouts	(4 – 5) ltrs/ 50 m^3 cement
Cementitious Repairing	(5 – 6) ltrs/ 50 m^3 cement
Tile Adhesive	(3 – 4) ltrs/25 ltrs tile adhesive

APPLICATION

Application Method	:	By roller or brush.
Coverage	:	Theoretical coverages are: Bonding agent: 13 m² when diluted 1 to 1. Sealer Coat: 20 m² when diluted 1 to 3. Admixture: 10 - 15 litre/100 kg Cement depending. Actual coverage depends on finish, porosity and texture of the substrate.
Position	:	The described process is suitable for vertical and horizontal applications.
Priming	:	Not required.
Process	:	• As a bonding agent slurry: Use a stuff brush to apply a thick coat to presoaked surfaces. Application of the subsequent render, mortar or screed should take place while the bond coat is still wet (tacky). DO NOT apply on dry bond coats. (If bond coat dries before subsequent application, roughen the dry coat before applying a further coat of NASA SBR 1000 slurry.) • As a bonding and waterproofing additive for site mixed floor screeds, renders, concrete repair and floor patching: Apply the screed, repair mortar or render mix using wooden float to place and compact while the bond coat is still wet (tacky). Finish with a steel float.

PACKING

Standard Package	:	NASA SBR 1000 is available in 1 Litre & 5 & 18 Litres.
Custom Package	:	Special packages can be arranged for large requirements.
How to Order	:	Specify the Product Name followed with a hyphen and package size.

STORAGE CONDITION

Shelf Life	:	12 months from the date of manufacturing.
Temperature	:	2°C and 50°C.
Points of Attention	:	Store in shaded area and properly sealed in its original packing.

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TECHNICAL PROPERTIES

PROPERTY	STANDARD	VALUE
Standard	ASTM	
Testing Conditions	Tests were carried out in Apollo R&D laboratory @ 25°C	
Component		Single component
Form		Viscous liquid
Colour		White
Specific Gravity		Around 1.0
Slant shear strength **ASTM C1042-99** **Type I (dry)** **Type II (after immersion)**		 > 7 MPa > 10 MPa
Tensil bond strength **ASTM C932**		> 2300 KPa (wet condition)
Stability		Stable in alkaline conditions
Compatibility		All types of Portland cement

ATTENTION

PPE	:	It is recommended to use full PPE while working with the product to avoid any possibility of irritation to skin or eyes. In case of accidental contact with eyes, immediately flush with plenty of water for at least 10 minutes and seek medical advice if necessary.
Hazardous Classification	:	Hazardous transportation.
Fire	:	Non-flammable.

APOLLO AT THE GLANCE

Apollo is confident with the technical solutions and high quality end products served to the customers.
Apollo invites you to explore other services and products:

• R&D and manufacturing custom solutions	• Adhesives	• Bonding Agents Systems
• Building Finishing Systems	• Concrete Admixture	• Concrete Repair Systems
• Flooring Systems	• Grouts & Anchoring Systems	• Painting & Putty Systems
• Protective Coatings	• Sealant & Jointing Solutions	• Structural Strengthening Solutions
• Surface Treatment Solutions	• Tile Adhesive & Grouting Solutions	• Waterproofing Systems

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