

# EPO LATEX SBR NO.1

SBR Based Multipurpose Waterproof Bonding Agent and Mortar Additive



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Ver 01/20

## DESCRIPTION

**EPO LATEX SBR NO.1** is a highly concentrated modified styrene butadiene rubber emulsion which is supplied as a ready to use white liquid. It is designed to improve the qualities of site-batched cementitious mortars and slurries. Being resistant to hydrolysis, it is ideal for internal and external applications in conjunction with cement.

## USES

- **Concrete repair:** Spalled concrete, repairing Floors, beams and pre-cast slabs etc.
- **Bond Coat:** For bonding new concrete to old concrete, plaster, stone/brick masonry.
- **Plaster & Mortar repair:** For making water proof plaster and mortar which is better than normal plaster and mortar.
- **Waterproofing:** Concrete additive for basements side walls and rafts, lift pits, inspection pits, sunken/overhead water tank, sunken portions of bathrooms and toilets, balconies, exposed roofs before finished screed.
- **Other typical applications:** Bedding tiles, fixing or re-fixing slip bricks.

## ADVANTAGES

- Highly concentrated single component liquid polymer.
- Can be used to produce waterproof thick mortar tile bedding for swimming pools.
- As an integral admixture used with cement/sand and aggregates. It will produce a wide range of special high quality mortars.
- Mixed with sand/cement, it will produce highly adhesive mortar for bonding extruded polystyrene or insulation panels to concrete.
- Economical to use since it can be diluted with clean water.

## PRODUCT DATA

<b>Form</b>	Liquid
<b>Color</b>	White
<b>Packing</b>	20 Kg plastic Gallon
<b>Consumption (As Bonding Agent)</b>	0.2 Kg/m <sup>2</sup> – 0.3 Kg/m <sup>2</sup> according to <b>WATER/ SBR NO.1</b> ratio and application Surface.
<b>Shelf Life</b>	12 months indoor, without opening package

## TECHNICAL SPECIFICATION

Test Name	Average Result
<b>Density@25°C</b>	1.01 ± 0.02 Kg/Ltr
<b>pH</b>	6 ± 1

## TYPICAL PROPERTIES OF SBR MODIFIED MORTAR

Test Name	Standard	Average Result
<b>Cement</b>	---	50 Kg
<b>Graded Sand</b>	---	150 Kg
<b>SBR NO.1</b>	---	7 Kg
<b>Water</b>	---	12 Ltr
<b>Wet Density@25°C</b>	---	2.00 ± 0.200 Kg/Ltr
<b>Compressive strength</b>	ASTM C109	> 38 MPa @ 28days
<b>Flexural strength</b>	ASTM C348	> 8 MPa
<b>Tensile strength</b>	BS 6319	> 4 MPa
<b>Adhesion for Bond Coat</b>	ASTM D 4541	> 1.0 MPa or concrete Failure.
<b>Water permeability for waterproof coat</b>	DIN 1048	Nil at 5 Bar

## PERFORMANCE SPECIFICATION

**EPO LATEX SBR NO.1** meets the performance requirements of **ASTMC-1059 TYPE II & ASTM C 932**.



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## APPLICATION AND TILES FIXATION

### SURFACE PREPARATION

Remove all loose concrete, grease, mold oil or curing compound from concrete and steel surfaces using wire brush, scrubber. Saw cut the concrete areas to a square or rectangular profile to a minimum 10 mm depth at the extreme edges. Roughen the surface free of loose particles and dust and saturate with water. Remove excess/standing water.

### BONDING SLURRY

Mix 1½ parts cement to 1 part **EPO LATEX SBR NO.1** by weight of cement, water can be added to get desired consistency.

Mix to a lump-free creamy, consistency for 2-3 minutes by slowly adding **EPO LATEX SBR NO.1**

Using a stiff brush, work the bonding slurry well into the damp surface. When the bond coat is tacky apply mortar overlay.

### AS WATERPROOFING SLURRY

Mix 2 parts cement to 1 part **EPO LATEX SBR NO.1** by weight of cement, water can be added to get desired consistency.

Mix to a lump-free creamy, consistency for 2-3 minutes by slowly adding **EPO LATEX SBR NO.1**

Using a stiff brush, work first coat of waterproofing slurry well into the damp surface.

After the first coat has dried, apply second coat at right angle to first, followed by mortar overlay. Average time gap between two coats is 3 to 4 hours

### MIX DESIGN- REPAIR MORTAR

**Mix Design Repair Mortar:** 7 Kg of **EPO LATEX SBR NO.1**:50Kg of cement: 150Kg of sieved sand: 12 liters of water.

### MIXING PROCESS MORTAR

Use fresh, lump free cement, well graded sand/aggregates free of excessive fine.

Mix sand in pan type mixer for 1-2 minutes. Hand mixing is only permissible when the total mix is only less than 25 Kg.

Mix required quantity of **EPO LATEX SBR NO.1** and water for 2 minutes in a separate container, to avoid excessive air entrapment.

Finally, without delay, add the liquid mixer slowly into the mixer contains the mixed powdered sand/coarse aggregate and cement until the required consistency is achieved.

### VERTICAL SURFACES

Apply the bonding slurry to the prepared surface and then apply the **EPO LATEX SBR NO.1** mortar onto the wet bonding slurry.

Application Thickness: 5 to 25mm.

Greater thickness can lead to slumping.

Apply multiple layers in rapid succession, within 15 to 30 minutes of the previous layer.

Finish the surface using a wooden float or steel trowel.

Apply modified slurry coat on the first layer in case application of second layer is delayed to long time gaps.

### HORIZONTAL SURFACES

Application thickness 10mm to 40mm

The **EPO LATEX SBR NO.1** modified mix should be placed over the still wet bonding slurry, well compacted by hand and trowelled to finish using a wooden float or steel trowel.

**Curing:** Moisture cure for 24 hours and then allow drying slowly

### ESTIMATING DATA

Usage	Mixing Ratio	Consistency
Bond Coat	1(SBR NO.1):1.5(cement)	Slurry
Water Proofing Slurry Coat	1(SBR NO.1):2(cement)	Slurry
Repair Mortar	0.7(SBR NO.1):5(cement):15(sand):1 (water)	Thixotropic

### MIXING RATIOS

#### Coverage

**Bonding Coat:** 4 to 4.5 m<sup>2</sup> for mix of 1 Kg **EPO LATEX SBR NO.1** and 1.5 Kg of cement.

**Waterproofing slurry:** 2 m<sup>2</sup> in two coats for mix of 1Kg **EPO LATEX SBR NO.1** and 2 Kg of cement.

**Repair Mortar:** 7 Kg of **EPO LATEX SBR NO.1** per 50 Kg of cement

### PRECAUTIONS

**Cleaning:** All equipment must be cleaned with water immediately after use. Mixes containing this product must not be emptied into drainage systems.

**Storage:** Shelf life 12 months when stored in dry conditions at moderate temperature and humidity. Protect the Product from frost. Mix well before use.

### HEALTH AND SAFETY

**EPO LATEX SBR NO.1** is non-toxic and non-flammable liquid, but it is mildly alkaline. Gloves should be worn during application. Splashes to the skin or eyes should be removed with clean water. In the event of the prolonged irritation, seek medical advice.

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