



We create chemistry

# MasterEmaco® SBR 2

High dispersion SBR Latex ensuring higher mixing efficiency with water reduction for site batched mortars & waterproofing/bonding slurry/screed

## DESCRIPTION

**MasterEmaco SBR 2** is a milky-white, Styrene-Butadiene co-polymer latex liquid, produced from styrene and butadiene by high pressure emulsion polymerization with high dispersive properties. When used with cement, concrete and plaster, it reduces the mixing time through high dispersion of the polymer and improves waterproofing, new to old concrete/plaster bonding and strength characteristics and reduces shrinkage and cracking of the mix.

## RECOMMENDED USES

**Concrete repair:** Spalled concrete, repairing floors, beams and pre-cast slabs, chajjas etc.

- **Bond Coat:** For bonding new concrete to old concrete, plaster, stone/brick masonry.
- **Plaster repair:** For repairing plaster or making water proof plaster which is better than normal plaster.
- **Floor screeds and toppings:** Abrasion resistant and non-dusting floors.
- **Waterproofing:** Basements side walls and rafts, lift pits, inspection pits, sunken/overhead water tank, sunken portions of bathrooms and toilets, balconies, chajjas, exposed roofs before finished screed.
- **Other typical applications:** Bedding tiles, fixing or re-fixing slip bricks.

## FEATURES AND BENEFITS

- **Multiple applications:** Robust product that is economical, easy to handle and store.
- **Easy to Mix:** Faster mixing to enhance worker efficiency.
- **Shrinkage/crack control:** High flexural / tensile strength to control cracking.
- **Mortar modifier-** Improved flexibility, no bleeding, lower water cement ratio and high resistance to water penetration.
- **Improves physical/mechanical properties** – higher abrasion resistance, good adhesion to building materials similar thermal characteristics to concrete.

- **Corrosion control:** Prevents corrosion of embedded steel.
- **High Dispersion technology:** Allows for better workability at slightly reduced water

## PROPERTIES

|                  |   |
|------------------|---|
| Aspect           | Milky-white, Styrene-Butadiene co-polymer latex |
| pH               | 8 ± 1   |
| Relative density | 1.02± 0.01 at 25°C                              |
| Solid content    | 37±1%   |

## Properties of Polymer modified mortar

|   |                              |
|---|------------------------------|
| Mortar proportioning                                |                              |
| Cement  | 50 Kg                        |
| Quartz Sand (Zone II)                               | 150 Kg                       |
| <b>MasterEmaco SBR 2</b>                            | 10 Litre                     |
| Water   | 10 Litre                     |
| Fresh wet density                                   | 2000 – 2200kg/m <sup>3</sup> |
| Mortar Compressive strength* (ASTM C 109), 70*70*70 | 40MPa at 28days              |
| Mortar Flexural strength* (ASTM C 348)              | 10MPa                        |
| Mortar Tensile strength* (BS 6319, pt. 7)           | 5MPa                         |
| Adhesion for Bond Coat (ASTM D 4541)                | >1.5MPa or concrete failure. |
| Water permeability for waterproof coat (DIN 1048)   | Nil at 5 Bar                 |

\*Properties are of typical mix and guiding in nature, and may vary depending upon mix constituents. BASF strongly advises to carry out site mix design and site trials.

## APPLICATION

### Surface preparation

- Remove all loose concrete, grease, mould oil or curing compound from concrete and steel surfaces using wire brush, scrubber.



**For Supplies please contact:**  
**Bils Innovations (India) Pvt. Ltd.**  
 Delhi, India  
 +91-11 42175807  
 +91 9582307311  
 Online Shop @ [www.bilsinnovations.com](http://www.bilsinnovations.com)

# MasterEmaco® SBR 2

- Saw cut the concrete areas to a square or rectangular profile to a minimum 10mm 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 **MasterEmaco SBR 2** by weight of cement.
- Mix to a lump-free creamy, consistency for 2-3minutes by slowly adding **MasterEmaco SBR 2**.
- Using a stiff brush, work the bonding slurry well into the damp surface. When the bond coat is tacky apply mortar/screed overlay.

### As waterproofing slurry:

- Mix 2 parts cement to 1 part **MasterEmaco SBR 2** by weight of cement.
- Mix to a lump-free creamy, consistency for 2-3 minutes by slowly adding **MasterEmaco SBR 2**.
- 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/screed overlay. Average time gap between two coats is 3 to 4 hours.

### Mix Design: Mortar&Screed.

- **Mix Design Repair Mortar:** 10 Litre of **MasterEmaco SBR 2**:50kg of Cement:150kg of sieved sand:10litres of water.
- **Mix Design Floor Topping/Screed.** 10 Litre of **MasterEmaco SBR 2**: 50Kg of Cement: 75Kg of sand: 75kg of coarse aggregate (6mm down): 10litres of water.

### Mixing Process Mortar/Screed:

- Use fresh, lump free cement, well graded sand/aggregates free of excessive fines.
- Mix sand and cement and coarse aggregate in Pan Type mixer for 1 -2 minutes. Hand mixing is only permissible when the total weight of the mix is less than 25kg.

- Mix required quantity of **MasterEmaco SBR 2** and water for 2 minutes in a separate container, to avoid excessive air entrapment.
- Finally, without delay, add the liquid mix slowly into the mixer containing the mixed powdered sand/coarse aggregate and cement until the required consistency is achieved.

### Rendering to vertical surfaces

- Apply the bonding slurry to the prepared surface and then apply the **MasterEmaco SBR 2** render 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.

### Screeds and toppings, applied to horizontal surfaces

- **Application thickness 10mm to 40mm.**
- The **MasterEmaco SBR 2** 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 to dry slowly

### ESTIMATING DATA

| Usage                       | Mixing Ratio   | Consistency |
|-----------------------------|--|-------------|
| Bond Coat                   | 1(polymer) :1.5(cement)  | Slurry      |
| Waterproofing slurry Coat   | 1(polymer) :2(cement)  | Slurry      |
| Repair mortar               | 1(polymer):5(cement):15(sand):1 (water)                        | Thixotropic |
| Floor Screeds / PCC Topping | 1(polymer):5(cement):7.5(sand):7.5 coarser aggregate:1 (water) | Thixotropic |

### Mixing ratios



We create chemistry

## MasterEmaco® SBR 2

### Coverage

**Bonding Coat:** 4 to 4.5m<sup>2</sup> for mix of 1 Litre MasterEmaco SBR 2 and 1.5kg of cement.

**Waterproofing slurry:** 2 m<sup>2</sup> in two coats for mix of 1 Litre MasterEmaco SBR 2 and 2kg of cement.

**Repair Mortar/Concrete Screed:** 10 Litre of MasterEmaco SBR 2 per 50kg of cement.

### PACKAGING

MasterEmaco SBR 2 is supplied in 1, 5, 20 Litre.

### SHELF LIFE

Store under cover, out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air-conditioned environment.

Shelf life is 12 months when stored as above.

### PRECAUTIONS

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the BASF Material Safety Data Sheet (MSDS) from our office or our website.

MasterEmaco SBR 2 /01/0615

### STATEMENT OF RESPONSIBILITY (Disclaimer)

The technical information and application advice given in this BASF Construction Chemicals publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

® = registered trademark of BASF group in many countries

### NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by BASF Construction Chemicals either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not BASF Construction Chemicals, are responsible for carrying out procedures appropriate to a specific application.

BASF India Limited  
Construction Chemicals Division  
Plot.No.12,TTC Area  
Thane Belapur Road, Turbhe  
Navi Mumbai - 400705, India  
Tel: +91 22 67127600, Fax: +91 22 67917358  
E-mail: construction-india@basf.com, www.master-builders-solutions.basf.in



For Supplies please contact:  
Bils Innovations (India) Pvt. Ltd.  
Delhi, India  
+91-11 42175807  
+91 9582307311  
Online Shop @ [www.bilsinnovations.com](http://www.bilsinnovations.com)



Ideas to Reality – Rendering Quality | Ecology | Safety