

TM-BOND[®] SBR

Styrene Butadiene Rubber Based Bonding Agent Cement Modifier



TM- BOND[®] SBR is styrene butadiene polymer emulsion based, specially designed for use as a bonding aid and gauging liquid for cementitious systems. It is resistant to hydrolysis and can therefore be used for external applications too. The elasticity and mechanical properties allow better grip to the concrete.

Uses

For modifying and improving bonding of floor toppings, renderings and mortars, repair of worn, damaged and spalled concrete, repair of large cracks; polymer modified floor screeds; waterproof plasters for masonry and slurries.

Benefits

- **Simple to Use**- Single component, gauged as required.
- **High Adhesion**- Provides excellent bond to concrete, plaster, masonry, stone work, etc.
- **Improves Durability**- Gives weather resistant mortar with improved impermeability to chlorides and other harmful agents.
- **Reduces Permeability**- Provides waterproof screeds, plasters and permeable slurries.
- **Increases Strength**- Improved tensile and flexural properties allowing thin applications.
- **Versatile**- Compatible with all common hydraulic cements.
- **Cost Effective**- TM-BOND[®] SBR is economical to use.

Technical Support

Thermax provides a technical advisory service supported by a team of specialists in the field.

Properties

Typical mechanical properties of 1:3 cement sand mortar at W/C- 0.45 for control and W/C - 0.35 for mortar containing TM-BOND[®] SBR (5 litre/ 50 kg cement). Tested & evaluated in accordance with BS 6319 & wet cured.

Mechanical Properties	Control	With TM-BOND [®] SBR
Compressive Strength, N/mm ²		
3 days	11.5	12.5
7 days	13	14.5
28 days	22.0	24.0
Tensile Strength @ 28 days, N/mm ²	2.5	3.0
Flexural Strength, N/mm ²	4.5	5.0
Specific Gravity	1.02	

Note: Increased dosages of TM-BOND[®] SBR and further water reduction system leads to improved mechanical properties.

Chemical resistance

Cementitious based materials have limited chemical resistance. The addition of TM-BOND[®] SBR to cement mortar reduces permeability and therefore helps reduce the rate of attack by aggressive chemicals.

Instructions for use

Surface Preparation

The object of the surface preparation is to achieve a clean sound surface with a good mechanical key. All substrates should be cleaned and free of dust, plaster, oil, paint, grease, corrosion deposits, and any other harmful substances. Laitance should be removed by mechanical means. Smooth substrates should be mechanically roughened e.g. by scrubbing, needle gun or grit blasting to provide an adequate key.

Corroded reinforcing steel should be exposed around its full circumference and cleaned to remove all loose scale and corrosion deposits. It is always preferably to clean the steel to a bright condition. Use of emery cloth, grit or sand blasting is recommended.

Priming

Reinforcing steel should be coated with Zinc primer coat immediately after cleaning. The concrete substrate should be thoroughly dampened with water and any excess removed before being primed by thoroughly scrubbing in a slurry coat of 1 volume TM-BOND[®] SBR to 1 volume of water to 3 volumes of fresh cement.

In order to obtain a smooth consistency the cement should be blended slowly into the liquids. Stir frequently during use to offset settlement.

Avoid 'puddling' of the slurry coat. The topping must be applied on to the wet slurry. If the slurry dries out, it must be removed and the clean substrate should be re-primed.

Typical Mix Designs

Patching and Repair Mortars and Plaster for Masonry

Cement	50.0 kg
Zone II Sand	150.0 kg
TM-BOND [®] SBR	5-9 litres
Recommended water addition	11-15 litres
Recommended thickness	8-30 mm

Heavy Duty Floor Screeds

Cement	50.0 kg
3-6 mm Granite Chips	75.0 kg
TM-BOND [®] SBR	5-9 litres
Recommended water addition	8-12 litres
Recommended thickness	10-25 mm

The screed should be of a semi-dry cohesive consistency.

Cleaning

Tools and equipment should be washed or cleaned with water immediately after use.

Additional Information

Prepare surfaces thoroughly. Cut back edges wherever possible to avoid feather edging. All surfaces including edges must be primed. All applications should be wet on wet; the primer must not be allowed to dry. The level of added water in the mix designs may need adjusting to achieve the required consistency. In general water content should be kept to the minimum necessary. For consistent performance the use of clean, dry sand is recommended. Where wet sand is used, reduce the added water level as appropriate. In order to prevent rapid drying, mortars should be properly cured with Maxcure[®] CC 75, curing compound. Protect uncured mortar from frost. Do not retemper mortar or primer after initial set. Minimum application temperature is 10°C. For permanently immersed conditions consult Local Thermax office.

Health & Safety Instructions

TM-BOND[®] SBR must not come in contact with skin and eyes or be swallowed. Protective gloves and goggles should be worn. If contact with skin occurs, wash well with soap and water. Eye contamination should be washed thoroughly with clean water and medical advice sought. If swallowed seek medical attention immediately-Do not induce vomiting.

Fire

TM-BOND[®] SBR is non-flammable.

Storage

Shelf life

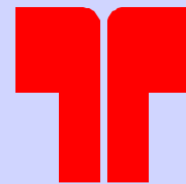
TM-BOND[®] SBR has a shelf life of 12 months if kept in a dry store in unopened condition.

Packing

TM-BOND[®] SBR is supplied in 1, 5 and 20 liters containers.

Coverage

Slurry coat: Approximately 6-7 m²/litre depending on substrate porosity.



THERMAX

Thermax Limited
Environment House, Plot No.90-92
BG Block, MIDC, Bhosari,
Pune 411 026, India.
Tel: +91-20-67156000
Fax: +91-20-27120206
Customer Care: 18002090115 (India
toll free)
Email : enquiry@thermaxglobal.com

Ahmedabad

Tel: +91-79-26575408 • Fax: +91-79-65577270

Bengaluru

Tel: +91-80-22371721 • Fax: +91-80-22371726

Chennai

Tel: +91-44-24303400 • Fax: +91-44-24353841

Delhi

Tel: +91-11- 46087200 • Fax: +91-11- 26145311

Hyderabad

Tel: +91-40-23253700 • Fax: +91-40-23253799

Kolkata

Tel: +91-33-66070800 • Fax: +91-33-66070999

Mumbai

Tel: +91-22-67542222 • Fax: +91-22-22040859

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UK, USA, UAE, Germany, Belgium, Denmark,
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