

Optomix SBR Bond

Optomix SBR is a white coloured Styrene-Butadiene Co-polymer Latex designed for use as a Bonding Aid and a Waterproofing additive with Cement compositions. Optomix SBR is used in concrete repairs, rendering, concrete protection, waterproofing and tanking. Optomix SBR is used to produce modified mortars which are durable and have a high abrasion resistance. The pure polymers used in Optomix SBR react with cement based mixes, increasing the compressive, flexural and bonding strengths of the mix. Using Optomix SBR in the mix also increases the wearing and abrasion resistance of the screed or mortar.

- Increases the flexural strength of screeds and mortar.
- Increases the compressive strength of screeds and mortar.
- Increases the abrasion resistance of screeds and mortar.
- Increased tensile strength.
- Increased durability and toughness.
- Improved frost and abrasion resistance.
- Excellent adhesion to steel, glass, asphalt and concrete.
- Resistance to many chemicals and mineral oils.
- Enhanced corrosion protection.

Specification Tip for Design Professionals

Optomix SBR may be specified by name or by using the following description: a propriety white coloured Styrene-Butadiene Co-polymer Latex liquid bonding-aid and admixture used to increase the physical and chemical properties of cement-based mortars and concrete. Optomix SBR complies with the requirements of BS EN 934-2 and is produced in accordance with the ISO 9001 Quality Management Standard and the ISO 14001 Environmental Management Standard.

Field Of Application

Optomix SBR can be mixed with cement as a bonding slurry for screeds, renders and mortars. The improvements allow the production of high-strength wearing screeds, thin section screeds, repair mortars and waterproof mortars.

Substrate & Preparation

All surfaces onto which Optomix SBR modified mixes are to be applied should be sound and free from loose particles, dust, clean and free from coatings or any other contaminants which may effect the adhesion of the screeds and mortars. When repairing spalled or damaged concrete, ensure that the concrete is cut back.

Mix Instructions

Bonding Coat: Damp down absorbent surfaces so they are saturated surface dry, using a mix consisting 2 parts CEM I mixed with 1 part SBR gauging fluid (3 parts Optomix SBR:1 part water) by volume. Mix into a smooth paste. Primer is brushed onto the prepared surface ensuring there is no free standing water, using a stiff brush or broom. Apply topping whilst bond coat is still tacky. If allowed to dry then remove bond coat and re-prime using the same procedure. Coverage of bond coat paste: approx. 3m² per litre, depending on smoothness and porosity of substrate surface and applied thickness.

Mortars & Screeds: Standard dose of 20 litres of Optomix SBR per 100kg Portland cement is adequate. For extreme conditions, where improved waterproofing and/or chemical resistance is required then the dosage should be increased to 30 litres of Optomix SBR per 100kg of Portland cement. (With higher dosages, the extra water addition is very low. Therefore, use of wet aggregates and sand may result in excessive workability.)

Curing: Correct curing of Optomix SBR modified mixes is important. Moisture cure for at least 1 day and allow to dry out slowly. Moisture curing is important to ensure hydration of the Portland cement. The Optomix SBR mortar must then be allowed to dry out to permit the latex polymer particles to join together to form a continuous polymer/concrete matrix.

Application

Mix should always be designed in consultation with the SMET technical team: call UK +44 (0)28 3026 6833. Stir well before use. After correct preparation surfaces should be damped-down with clean potable water prior to application of the Optomix SBR Bonding Aid. Optomix SBR should not be pre-mixed with other admixtures and should be batched separately.

- Using a soft brush apply a layer of the Bonding Aid to the prepared area working the solution in well.
- Using a trowel slightly compact the Optomix SBR Modified Screed or Mortar into place whilst the Optomix SBR Bonding Aid is still tacky.
- Use a wooden float or a steel trowel to achieve the required finish.

Coverage

3m² per litre – Bonding Coat.

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Restrictions

Note: Optomix SBR Modified Screeds/ Motars should be protected from rain for at least 24 hours after application. SBR Modified Motars should not be applied if the temperature is 5°C or below or are expected to fall below 5°C in the following 24 hours. During application the temperature must not drop below +5°C or rise above +30°C.

Cleaning

Once dried, Optomix SBR is difficult to remove, thus care should be taken to clean tools quickly before hardening, using cold clean water. If delayed, then use of soap and scouring pad may-be required

Packaging

Optomix SBR is packed in 25ltr, 200ltr and 1,000ltr containers.

Storage

Optomix SBR should be stored in its original manufacturers containers, covered in dry conditions above 5°C and protected from extreme temperatures.

Disposal Considerations

13.1. Waste treatment methods. Disposal methods: Dispose of in accordance with Local Authority regulations as special waste according to The Control of Special Waste Regulations 1996.

Safety

All standard precautions for the handling of construction materials/chemicals must be taken. See Optomix SBR Safety Data Sheet for further detailed information.

Classification (SI 2019 No. 720) Physical hazards Not Classified. Health hazards Skin Sens. 1 - H317. Environmental hazards Not Classified. Signal word: Warning. Contains 1,2-benzisothiazol-3(2H)-one, 2-methylisothiazol-3(2H)-one. Detergent labelling: Contains 1,2-BENZOISOTHIAZOL-3(2H)-ONE, 2-METHYL-2H-ISOTHIAZOL-3-ONE.

Hazard statements

H317 May cause an allergic skin reaction.

Precautionary statements

P261 Avoid breathing vapour/ spray.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P501 Dispose of contents/ container in accordance with national regulations.

P272 Contaminated work clothing should not be allowed out of the workplace.

P321 Specific treatment (see medical advice on this label).

Technical Information

Form	Milky White Liquid
pH	8
Specific Gravity (20°C)	1.00 g/cm ³
Chloride Content	< 0.10
Alkali Content (Na ₂ O):	< 2.00
Mixing	Mix should always be designed in consultation with the SMET technical team. Call: +44 (0)28 3026 683
Shelf Life	If stored between the range 5°C to 30°C the product will have a minimum shelf life of 12 months.

FOR MORE INFORMATION CONTACT: **smet Building Products Ltd**

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