



Buildmix-SBR (SBR based Bonding Agent & Water Resistant Admixture for Mortars & Concrete)

Buildmix-SBR is a specifically designed synthetic rubber emulsion for adding to cement mortars & concrete where good adhesion, water resistance, increased flexural and tensile strengths are require.

Usage: Buildmix-SBR is a high quality emulsion that substantially improves the qualities of cement mortars and concrete, such as thin layer patching mortars, Renders, Floor screeds and toppings, Tanking & Waterproofing, Concrete repair mortars, Corrosion protection of steel, Abrasion resistant linings, Tile fixing mortars, Masonry mortars, etc.

Advantages: Buildmix-SBR modified cement based mixes provide the following properties:

- Extremely good adhesion, reduced shrinkage, Increased flexural and tensile strength
- Increased corrosion protection and improved Chemical & Mineral oil resistance
- Greatly enhances resistance to water borne salt penetration and corrosion
- Prevents bleeding and lower water-cement ratio
- Excellent water resistance and abrasion resistance
- Does not re-emulsify, even in high alkaline conditions
- Can be used with mortars in contact with potable water

Directions for use:

Surface Preparation: The Surface should be clean, dry and free from oil, grease, curing compound, any loose materials and all loosely adhering particles. The substrate should be even, firm, and in saturated dry condition. Ensure that reinforcing steel is clean and free from grease or oil; remove scale and rust. When repairing spalled or damaged concrete; ensure that the concrete has been cut back to sound material.

Mixing: Mixing should preferably be carried out in an efficient concrete mixer (pan type mixer), such as a Creteangle, is recommended. Hand mixing is only permissible when the total weight of the mix is less than 25kg in one pass.

Application (Bonding slurry): Must wet down absorbent surfaces such as concrete, brick, stone, etc., ensuring that they are saturated but free of surface water. Prepare a bonding slurry of 2 parts cement to 1 part Buildmix-SBR, mixed to a lump-free creamy, consistency. Use a stiff brush; apply the bonding slurry well into the damp surface, ensuring that no pinholes are visible. Do not apply bonding slurry at a thickness in excess of 2mm. If a second coat is necessary, it must be applied after the first coat is touch-dry. The second coat must be applied at right angles to the first to ensure complete coverage. (Approximately 20ltr of Buildmix-SBR mixed with 50kg of OPC Type I cement will give creamy slurry which will cover 20 square metres of substrate dependent on surface texture and thickness applied.)

Materials for SBR Modified Mixes:

Sand: Sand should be sharp washed, well graded and free from excessive fines.

Cement: Buildmix-SBR is compatible with all types of OPC, sulphate resisting Types II and V cement.

Water: The strong plasticising action of Buildmix-SBR greatly reduces the water cement ratio for any given workability

Buildmix-SBR: Standard dose is 5ltr per 50kg of cement. For more demanding situations, such as exposure to chemicals or wear, 10Ltr of SBR per 50kg of cement is recommended.

Guide to Applications:

Rendering to vertical surfaces: Apply the bonding slurry to the prepared surface and then apply the Buildmix-SBR render into the wet bonding slurry. Apply Buildmix-SBR modified mortars in coats at a maximum thickness of 6mm per coat. Greater thickness can lead to slumping. Several coats can be applied in fairly rapid succession, usually within 15 to 30 minutes of the previous coat. Close the surface using a wooden float or steel trowel.

Another method is to let the first coat of render dry overnight and apply another slurry coat before applying the second coat of render.

Screeds and toppings, applied to horizontal surfaces:

Screeds, patches, etc., based on Buildmix-SBR modified cements, can be laid to any thickness from 60mm down to 6mm minimum. After mixing, the Buildmix-SBR modified mix should be placed over the still wet bonding slurry, well compacted and struck off to level.

It may then be trowelled to the required finish using a wooden float or steel trowel. Note: Whenever screeds are being laid over existing concrete surfaces, it is important that expansion joints in the sub-floor are carried through the Buildmix-SBR modified mix. This can be done by fitting a temporary timber batten wrapped in polythene sheet into the joint.



Curing:

Correct curing of Buildmix-SBR modified mixes is important. Moisture cure for 24 hours and then allow to dry out slowly. (Note that initial curing is necessary to provide good curing conditions for the hydration of the Portland cement, then the Latex mortar must be allowed to dry out to permit the Latex particles to join together to form the continuous films and strands).

Pack Size: 20 kg jerry cans or 200 kg drums

Shelf Life & Storage:

12 months if stored properly in original unopened packing in dry conditions away from direct sunlight.

Technical support:

GMC offers comprehensive technical support service & specification assistance in locations to our channel partners, end users, and contractors.

Quality & Care:

All the products manufactured and originated from Gulf Minerals and Chemicals, UAE facility are independently tested and certified under a GMC Management System to conform to the requirements of the quality, environmental, health & safety Standards.

Typical Properties:

Appearance	: White Emulsion
Specific Gravity	: 1.2 ± 0.05
Material Type	: Styrene Butadiene Co-polymer
Chloride Content	: Nil

Unless otherwise stated typical properties are based on a 3:1 sand-cement mix in which 10 litres of Buildmix-SBR per 50kg of Type I OPC cement has been incorporated.

Compressive strength	: 40N/mm ²
Tensile strength	: Up to 6.5N/mm ²
Flexural strength	: Up to 13N/mm ²
Freeze thaw resistance	: Excellent
Shrinkage during cure	: 0.01% to 0.02%.
Co-efficient of thermal Expansion	-20°C to +20°C: 12.8×10^{-6} -20°C to +60°C: 12.9×10^{-6}
Chemical resistance	: Resists mild acids, alkalis, Urine Sulphates, chlorides, dung, lactic acid, sugar, etc.

Handling:

Buildmix-SBR is a non- flammable and non-toxic in nature. Avoid contact with eyes and skin as it may cause irritation due to its alkaline nature.

Health & Safety Precautions:

During use, avoid contact with skin and eyes. Wear suitable protective clothing, gloves, eye protection and respiratory protective equipment. The use of barrier creams provides additional skin protection. In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water.

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