CERALATEX SBR
Water-resistant additive and bonding agent for cementitious systems based on styrene butadiene rubber latex

Ceralatex SBR is styrene butadiene rubber latex, which has been specifically designed for use with cement compositions. It can be used to form water and vapour resistant bonding coats, prior to application of renders, plasters and screeds. Ceralatex SBR aids in better mechanical properties by ensuring a sound contact area between old and new concrete.

ADVANTAGES:
- Excellent bond strength
- Improved tensile, flexural and compressive strength
- Resistant to water penetration
- Highly recommended for repairs and rehabilitation of structures
- Easy to use

FUNCTION:
Ceralatex SBR when incorporated into cement mortar mixes, forms polymer modified system with interpenetrating polymer films which exhibits excellent adhesion, improved tensile, flexural and compressive strengths, excellent resistance to water, water vapour and improved chemical resistance.

USES:
Ceralatex SBR can be used for repairing concrete elements like beams, columns and slabs.

Ceralatex SBR is an excellent material for bedding tiles, fixing slip bricks, waterproofing above and below grade, abrasion resistant flooring and lining effluent tanks and tubes.

Ceralatex SBR provides excellent adhesion between old and new concrete and hence ensures a monolithic system after repair.

METHOD OF APPLICATION:
When Ceralatex SBR modified mixes are used, it is essential that the following procedures are closely followed.

Surface Preparation:
Remove all laitance, oil, grease, mould oil, curing compound, etc using a wire brush or for large floor areas, a scrubbing machine. 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 sound surface is exposed.

Bonding slurry:
Ensure that absorbent surfaces such as concrete, brick, stone etc., are saturated surface dry. Prepare bonding slurry consisting of Mix Ratio. Ceralatex SBR, Water & Cement: 1:1:5, mixed to a lump free consistency. Using a stiff brush, apply the bonding slurry well onto the damp surface ensuring that no pinholes are visible. Do not apply bonding slurry at thickness in excess of 2mm. If a second coat is necessary, it must be applied after allowing the first coat to “flash-off”.

Preparation of Ceralatex SBR modified mix:
It is important that the Ceralatex SBR modified mix is applied to the saturated dry substrate. If the bonding slurry dries, another coat must be applied. The proportions and quantities of sand, cement and Ceralatex SBR differ for particular applications (see mix design).

Workability:
The strong plasticizing action of Ceralatex SBR allows the water-cement ratio to be reduced to a minimum consistency with workability required for application.
Mixing:
Mixing should preferably be carried out in a concrete mixer although hand mixing is permissible where the total weight of the mix does not exceed 25 kg.

Charge the mixer with the required quantity of sand and cement, and premix for approximately one minute. Pour the desired quantity of Ceralatex SBR and mix for 2 to 3 minutes. Finally, add the water little by little, until the required consistency is achieved. Owing to the strong plasticizing properties of Ceralatex SBR, it is best to add the water cautiously as rapid thinning can occur.

Curing:
It is preferable to cure Ceralatex SBR modified mortars as soon as they are laid, to prevent rapid evaporation of water essential for hydration. This can be achieved by using polythene, damp hessian, or a suitable concrete curing membrane.

SPECIFICATION COMPLIANCE:
Cera Latex SBR meets ASTM C 1059-99, Standard Specification for Latex Agents for Bonding Fresh to Hardened Concrete, Type II.

COMPATABILITY:
Ceralatex SBR is compatible with all types of OPC, sulphate resisting and high alumina cements.

TYPICAL PROPERTIES OF MODIFIED MORTAR:
Typical properties of a Cera Latex SBR modified cement and sand mix in the proportion of 3 parts sand to 1 part cement (Cera Latex SBR dosage 10ltrs/ bag of cement), are as follows:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>Compressive Strength</td>
<td>32 N/mm²</td>
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<tr>
<td>Tensile Strength</td>
<td>4.5 N/mm²</td>
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<tr>
<td>Flexural Strength</td>
<td>10 N/mm²</td>
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<tr>
<td>Freeze thaw resistance</td>
<td>Excellent</td>
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<tr>
<td>Water vapour permeability</td>
<td>Reduced by 96%</td>
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<tr>
<td>Adhesion</td>
<td>Excellent to concrete, steel, brick, glass etc</td>
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<tr>
<td>Coefficient of thermal expansion</td>
<td>(at-20 to +20°C 12.8x10⁻⁶)</td>
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<tr>
<td>Chemical resistance</td>
<td>Resists mild acids alkalis sulphates, chlorides, urine, dung lactic acid, sugar etc</td>
</tr>
<tr>
<td>pH</td>
<td>7.9</td>
</tr>
<tr>
<td>Supply form</td>
<td>White Liquid</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.040 ± 0.020</td>
</tr>
<tr>
<td>Toxicity</td>
<td>Nil</td>
</tr>
<tr>
<td>Dry Material content (% by mass)</td>
<td>51.65 (ASTM D638)</td>
</tr>
</tbody>
</table>

Dosage: 2% to 7% by weight of cement. Higher dosage of Cera Latex SBR and further reduction in water ratio leads to improved mechanical properties.

PACKAGING:
500gms, 1kg, 6kg, 10kg, 50kg, 100kg and 210Kg.

SHELF LIFE:
12 months in sealed containers. Avoid prolonged storage in excessive heat.

HEALTH & SAFETY:
Avoid contact with skin for prolonged period. Any contact with eye, wash immediately with plenty of water and seek medical attention.

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Edition: Aug 2015