

### Description of BS MoistureZero

MoistureZero® is formulated specially for use in combination with all kinds of cement blends. It is to be used in cementitious slurries as a waterproofing coating against moisture ingress along with resistance to hair line cracks.

### Key benefits of BS MoistureZero

1. It is based on high-density cross-linked layer forming technology that gives it the required flexibility to withstand hairline cracks.
2. Cures to form a breathable system reducing chances of blistering.
3. When reinforced with glass fibre mesh, the system achieves high performance hardwearing properties needed for terrace slabs.
4. Cures to a drinking water safe coating, does not affect the water portability in water storage tanks.
5. Excellent adhesion to various building materials such as concrete and plaster.
6. Does not release any toxic vapour or fumes when used
7. An economical solution for waterproofing.

### Specifications of BS MoistureZero Slurry

Waterproofing slurry coat consists of BS MoistureZero® as the polymerizer and modifier. This polymer has minimum solid contents of 28% by weight

1. It shall be usable as bonding slurry coat and have a pull-off bond strength of not less than 1 MPa.
2. The waterproofing slurry with BS MoistureZero® has to be applied at a minimum recommended thickness on 1mm for two coats by brush this shall be mix of cement to polymer in the ratio of 2:1 by weight.
3. The waterproofing slurry should be covered and protected by a polymerized mortar layer, using BS Smartbond 100.

### Technology in BS MoistureZero

BS MoistureZero consists of nano particles from synthetic rubber dispersed in an aqueous base. The technology of BS MoistureZero works on a unique mechanism that highly enhances the bonding and polymerising of concrete mix matrix. The product shall have minimum butadiene content of 40% by weight. It

shall be capable of being used as bonding agent and have pull-off bond strength not less than 1 MPa.

### Properties of BS MoistureZero

<b>Appearance</b>	Soft smooth milky liquid.
<b>pH Level</b>	7 to 8
<b>Specific Gravity</b>	1.08 ±2
<b>Solid Contents</b>	28 % ±2

### Properties of Cement Slurry with BS MoistureZero\*

Slurry Mix	
<b>Cement</b>	5Kg
<b>BS MoistureZero</b>	2.5 Kg
Mortar Properties with above mix	
<b>Wet Density</b>	1700 to 1900 Kg/m <sup>3</sup>
<b>Pot Life</b>	30 Minutes at 30 C
<b>Adhesion to Concrete</b>	> 1 MPa (as per ASTM D4541)
<b>Recoatable</b>	4 to 8 hours
<b>Resistance to water pressure</b>	1mm at 4 Bar 2mm thick at 7 Bar

\*Above results are for a typical mix and will vary depending upon mix constituent available for test. We strongly advise to carry out site mix design and trials. Polymer mortar is to be used in support of a composite waterproofing system.

### Directions for Use: Surface preparation

1. All application surfaces should be clean, sound, and free of loose matter. Remove laitance, oil, grease, de-moulding agent or curing compound from concrete surfaces using wire brush or other such equipment.
2. When repairing spalled or damaged concrete, ensure that the concrete has been chiselled or cut back to a sound surface.

### To make Waterproofing slurry with BS MoistureZero

1. Wet down absorbent surfaces, such as concrete, plaster, etc.
2. Ensure that they are saturated but free of surface water.
3. Mixing: - Prepare a waterproofing slurry of 1½ to 2 parts cement to 1-part BS MoistureZero by volume, mixed to a lump-free creamy, consistency.
4. Take a clean mixing container and fill with the measured quantity of BS MoistureZero. Slowly add the cement to the liquid and mix, using a slow speed drill fitted with a suitable paddle. Leave the mixed material to stand for 5

minutes to allow for full saturation to take place. Remix to restore the consistency. Do not mix more material than can be used in half an hour.

5. A 20 Kg pack of BS MoistureZero will generate bonding slurry for an area of around 320 to 325 Sq. Ft depending on the substrate.

#### **Mixing Advice on mortar with BS MoistureZero**

1. Mixing should be preferably carried out in a concrete mixer preferably a pan type mixer
2. Hand mixing is advised only when the total weight of the mix is less than 10 kg.

#### **Curing**

1. Water Spray cure the coating for 24 hours and then allow to dry out slowly.
2. Initial curing is necessary to provide good curing conditions for the hydration of the cement, then the polymerised coating must be allowed to dry out to permit the particles to combine and form the layer properly.

#### **Other Information**

- Storage: Indoors, away from Sunlight (5C to 35 C).
- Disposal of empty containers as per local byelaws.
- Packing available: 1 / 5/ 20 / 225 Kgs.



Figure 2 Flexibility of MoistureZero Cement Film

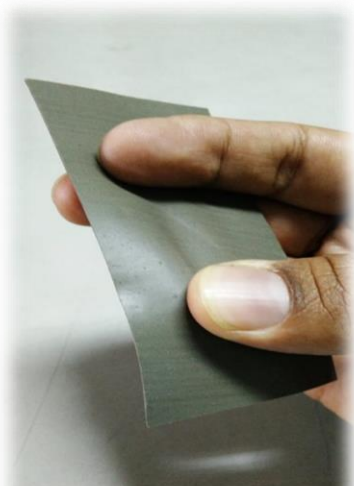


Figure 1 Micro Crack Bridging capability in BS MoistureZero