

## DO YOU KNOW?

*Concrete is an inexpensive, readily available, versatile, strong material available for more than 100 years. But, it is also a hard sponge; hydrophilic and soaks up water. A waterproofing system is needed to stop water from getting in, and from damaging rebar in the concrete. Membrane waterproofing is most effective option for protection of existing structures.*

## PRODUCT DESCRIPTION:

**Multiguard SuperMortar 1** is based on advanced polymer chemistry with additional advantage of cement technology. Unique properties of **SuperMortar 1** makes it unique product for new and old building construction. It is ideal product for surfacing, protecting, and waterproofing concrete, masonry and other construction material.

Multiguard SuperMortar 1 is a two component, thixotropic, cementitious modified polymer coating with high adhesion to both steel and concrete. Multiguard SuperMortar 1 forms a hard, highly alkaline screed with a degree of elasticity which not only protects the concrete, or other substrates, from the effects of aggressive acid gases, moisture and chlorides, but also has greatly enhanced chemical resistance.

## ADVANTAGE:

**SIMPLE PACKAGE:** Material is pre-packaged in a convenient and easy to handle size. Requires only mixing on site.

**EASY TO USE:** Mortar gun or trowel applied, normally in 3 to 12mm thickness.

**RESISTANT:** Good abrasion and very high resistance to freeze/ thaw cycles and de-icing salts.

**ADHESIVE:** Excellent adhesion to concrete, block work, brick work, masonry

**SAFE:** Non-toxic when cured.

**IMPERMEABLE:** Very high resistance to water permeability and diffusion to carbon dioxide gas.

**COST EFFECT:** Economical.

**WATER PRESSURE:** Can be used for active and passive waterproofing and protection against water and moisture, resisant to 100 metre of water head pressure from positive side

**CRACKS:** For cracks and area of potential cracking

**REPLACES:** Safely replaces Shahabad Stone (Ladi)

**USES:**

To waterproof and damp-proof concrete, cement rendering, brickwork and blockwork. To protect concrete against the effects of freeze-thaw cycles, de-icing salts, carbon dioxide and other acid gases, dilute acids and alkalis.

This includes: Rigid waterproofing of water tanks, sealing internal basement and cellar walls against dampness, protection of concrete structures in marine environments, external tanking of substructure concrete such as foundations and basement walls in new buildings. The product is 100% chloride free.

**Multiguard<sup>®</sup> SuperMortar 1 has application in following structures:**

- Protection for walls and slabs
- Above and below grade construction
- Water containment Structures
- Sewage and waste water treatment plants
- Bridges, dams and highway infrastructure
- Secondary containment structures
- Underground vaults
- Tilt-up panel walls
- Pre-cast components
- Architectural water features and fountains
- Aquatic centers, marinas and zoos
- Swimming pools
- Where waterproofing and corrosion protection is required

**TYPICAL PROPERTIES:**

Properties	Standards	Value
Appearance	Nil	Gray and White
Permeability	IS: 2645-2003	Passes, reduces by 70%
Setting Time	IS: 2645-2003	Passes
Adhesion	ASTM C1583, ASTM C1072, ASTM D3359	Neutral, no effect on adhesion of concrete or rebar
Thickness/Coverage	Nil	3 to 12 mm thickness/1.2 to 1.5kg/m <sup>2</sup> /1mm thick
Drying Shrinkage	ASTM C157	Help to reduce
Slump	ASTM C143	Near to neutral
Chloride Content	IS: 2645-2003	Nil
Packing		25 Kg Powder + 5 Kg Liq
Shelf Life		2 Years

## USAGE GUIDELINES:

### **PREPARATION:**

The areas to be treated must be free from all unsound material, i.e. dust, oil, grease, corrosion by-products and organic growth. Smooth surfaces should be roughened, all loose material and surface laitence removed and steel cleaned to bright metal preferably using wet grit or water blasting techniques or equivalent approved methods.

### **PRIMING:**

The prepared substrate concrete should be thoroughly soaked (preferably 24 hours before) with clean water until uniformly saturated without any standing water, highly porous substrates may require sealing with **Multicrete CM**.

### **MIXING:**

Pour approximately half the contents of one of the bottles marked Part A into a suitable mixing vessel. Slowly add one of the packs marked Part B and mix until homogeneous. Then add the remainder of the opened part A and remix for a minimum of 5 minutes. The modules must be mixed using a drill and paddle specially designed to entrap as little air as possible. Repeat with the second containers of Parts A and B provided.

### **PLACING:**

**Multiguard SuperMortar 1** can be applied using spray techniques: however, trowel applications may be employed although care must be taken to ensure that air is not entrapped onto the surface. Apply the first coat, approximately 6mm thick, onto the prepared substrate. To ensure total protection, a second coat should be applied in the same way, after waiting approximately 30 minutes depending on temperature (when the first coat is stable but not fully set). Single coat of 12mm may be applied at a time.

### **CLEANING:**

All tools should be cleaned with water immediately after use.

### **CURING:**

Normal concreting procedures should be strictly adhered to. It is important that the surface of the coating is protected from strong sunlight and drying winds with Multichem CURING MEMBRANE, polythene sheeting, and damp hessian or similar. Alternatively, for flooring applications, a 300-600 micron silica sand can be cast liberally onto the surface (approximately 2kg/m<sup>2</sup>), taking care to ensure that the sand does not penetrate the full depth of the coating. This provides effective curing, whilst

also providing a hard wearing, non-slip finish. Curing must commence within 10-15 minutes of the completed application of the coating.

**STORAGE:**

Store in dry, frost-free conditions at moderate temperatures not greater than 25 °c.

**IMPORTANT POINTS:**

Apply only to clean, sound substrates. Concrete should be saturated but surface-dry and free of water backpressure. Care should be taken when curing in hot, sunny or windy conditions. Discard Multiguard SuperMortar 1 packages which has been subjected to freezing temperatures.

Multiguard SuperMortar 1 is not a decorative finish and may temporarily discolours until uniformly weathered. It can also be colored to desired look. It may, however, be overcoated with Multichem membranes to produce a coloured finish.

When treating structures in a tidal zone, the Multiguard SuperMortar 1 must be allowed to cure for a minimum of 8 hours before being immersed. Protect from abrasion or aggressive tidal flow if necessary.

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**WARRANTY**

Multichem warrants Multiguard<sup>®</sup> to be free from manufacturing defects as defined in this warranty. Manufacturing defects are considered to be those defects that occur due to the quality of the ingredients or from the manufacturing process itself. This warranty does not include labor costs and other costs or expenses associated with the removal or installation of Multiguard<sup>®</sup>.

Because the Multichem does not perform the actual installation, it cannot be held responsible for the results of the application. Multichem specifically disclaims problems that occur due to weather conditions, structural movement, structural design flaws and application techniques.

This warranty is in lieu of all other warranties expressed or implied including the warranty of merchantability and fitness of purpose and of all other obligations or liabilities on Multichem part. Multichem neither assumes nor authorizes any person to assume for Multichem any liability in connection with the sale and installation of Multiguard<sup>®</sup>.

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