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MasterSeal®511 (formerly known as Rheomix115)

Acrylic based polymer for making site-batch cementitious protective & waterproof slurry coat

DESCRIPTION

MasterSeal 511 is a milky-white, acrylic co-polymer based liquid. **MasterSeal 511** is a specifically designed for use with cement compositions. It is used in cementitious slurry as a polymer modifier to increase resistance to water penetration, improve abrasion resistance and durability. It is also used with cement as a reliable water-resistant bonding agent.

RECOMMENDED USES

Typical applications include:

- **Waterproofing and tanking:** Basements lift pits, inspection pits, water towers, liquid tanks, effluent tanks and swimming pools, basements, terraces.

Other typical applications: bonding slurry coat, polymer modified flooring, render key coat, render modification, and patch repair mortars

FEATURES AND BENEFITS

- **Durable-** Unaffected by ultra-violet light or contact with water.
- **Mortar improver** –Improves workability and lowers water cement ratios of cementitious mixes.
- **Increases density** - Higher resistance to water penetration and wear resistance.
- **Improves adhesion** - Excellent adhesion to a variety of building materials.
- **Non-toxic.** - Can be used with potable water.

PROPERTIES

Aspect	: Milky white liquid
pH	: 9 ± 1
Specific gravity	: 1.01 ± 0.01
Solids, by weight	: 28 ± 1%

Properties of Polymer modified cementitious slurry

Slurry proportioning:	
Cement	: 5 Kg
MASTERSEAL 511	: 2 ½ Kg
Slurry Properties:	
Fresh wet density*	: 1700 ~ 1900 Kg/m ³
Pot Life*	: 60 min at 25°C 20 min at 40°C
Recoatable*	: 6 – 12 hours

Adhesion to concrete*	: > 1 MPa (ASTM D4541)
Resistance to water head*	: 1mm thick – 4 bar 2mm thick – 7 bar

*Properties are of typical mix, and may vary depending upon mix constituents.

APPLICATION

Surface preparation

The surface to be coated must be clean and sound. Remove all traces of formwork, release agents, previous coatings, laitance and any other contaminants that may affect the bond adversely. Suitable cleaning methods include high pressure water jetting and grit blasting. Mechanical wire brushing may be appropriate for small areas. After the above surface preparation, surfaces must be thoroughly washed with clean potable water to remove all dust and loose particles.

Spalled concrete should be cut back to sound concrete and made good with using **MasterSeal 511** modified cementitious mortar. All cracks and blow holes must be cut out and filled solid with using **MasterSeal 511** modified cementitious slurry.

MasterSeal 511 modified waterproofing slurry is suggested only on sound substrate such as reinforced concrete slabs and tanks and do not use for waterproofing leaking brick-bate koba or lime terracing.

Mixing

Prepare a waterproofing slurry of 1½ to 2 parts cement to 1 part **MasterSeal 511** by volume, mixed to a lump-free creamy, consistency. Take a clean mixing container and fill with the measured quantity of **MasterSeal 511**. 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.

Application

Always apply waterproofing slurry coat modified with **MasterSeal 511**, to pre-dampened surface. High-suction substrates require more dampening then dense substrates. However, make sure there



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is no free-standing water. Apply by brush or broom. Mixed material must be used within 30 -45 minutes, or less under hot weather conditions.

First Coat: Brush or broom the mix firmly onto the pre-dampened, prepared surface. Care must be taken not to spread the material too thinly. When the material begins to drag or “ball”, do not add more liquid/water but dampen the surface again.

Second Coat: Allow at least overnight to cure before applying subsequent coats. Dampen the first coat and remove excess moisture. Brush or broom the mix onto the surface (as above) finishing in the opposite direction to the first coat.

Top protection coat

Top coat is optional and recommended for the permanently submerged conditions or on exposed conditions (subjected to light foot traffic).

Dry-shake quartz sand in the second coat of waterproofing slurry, when still tacky to form anchors for better adhesion of protection coat to the waterproofing slurry. Use MASTERTOP SRA No 1 in place of quartz sand.

Prepare a protection coat of 1 parts cement, 2 part quart sand to 1 part **MasterSeal 511** & ½ part water by volume, mixed to a lump-free creamy, consistency. Apply using flat trowel to the required thickness.

(5mm thick render shall require 2 kg of **MasterSeal 511**, 3 Kg of cement, 5 Kg of sand & 1 litre water per m²)

Repair Mortar

Mix **MasterSeal 511**, cement & quartz sand (Zone II) in 1:5:15 proportion by weight. Add required amount of water to achieve trowellable consistency (no exceeding 30% by weight of cement). Use this MASTERSEAL 511 modified mortar for repairs of substrate & filling the cracks; and making vata at the corners.

(20mm thick render shall require 2 kg of **MasterSeal 511**, 10 Kg of cement, 30 Kg of sand & 1-2 litre water per m²)

ESTIMATING DATA

Consumption depends on application and the profile of the substrate. On fair-faced concrete, 1 mm thick polymer modified waterproof slurry shall require 0.6 – 0.8 Kg of polymer per m².

PACKAGING

MasterSeal 511 is supplied in 5kg, 20kg & 210 kg.

SHELF LIFE

Store under cover, out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air-conditioned environment.

Shelf life is 12 months when stored as above.

PRECAUTIONS

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the BASF Material Safety Data Sheet (MSDS) from our office or our website.

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BASF India Limited
Construction Chemicals Division
Plot.No.12,TTC Area
Thane Belapur Road,Turbhe
Navi Mumbai - 400705,India
Tel: +91 22 67127600, Fax: +91 22 67917358
E-mail: construction-india@basf.com , www.master-builders-solutions.basf.in

