

MasterSeal[®] 588

An elastomeric, cement based waterproof coating for concrete and masonry

DESCRIPTION

MasterSeal 588 powder is a blend of Portland cements, selected silica sands and modifying agents. When mixed to a slurry consistency with **MasterSeal 588** liquid, an acrylic polymer emulsion, it can be easily applied by brush or roller. It cures to give an elastomeric flexible membrane.

MasterSeal 588 must be reinforced with mesh across all construction joints and cracks. The reinforcing mesh may be either 100% virgin polypropylene or an alkali resistant glass-fibre mesh depending on which particular enhanced tensile properties are required, please consult your local Master Builders Solutions Technical Service Representative for further advice on the correct selection of mesh.

TYPICAL APPLICATIONS

- For waterproofing of water-retaining structures which may be subject to movement.
- To protect concrete from water, carbonation and deicing salts.
- Suitable for internal and external use, against positive and negative water pressure.
- Suitable for use in wet area waterproofing where tiles are to be installed directly on top of the membrane using a proprietary tile adhesive.
- Can be applied to damp substrates.
- Thin layer application.
- Equipment to be cleaned simply with water.
- For waterproofing of swimming pools.

ADVANTAGES

- Retains flexibility when submerged
- Good chemical resistance against soft water, domestic waste water, manure or other liquids moderately aggressive to mineral substrates
- Withstands occasional foot traffic
- Freeze-thaw resistant
- Water vapour permeable
- CO₂ barrier
- Non-toxic, suitable in contact with drinking water
- Simple and fast method of treating cracks and joints
- Quick and easy brush or roller application

PACKAGING AND COLORS

MasterSeal 588 is supplied in 35 kg unit (25 kg Powder + 10 kg Liquid, mix ratio 1:1) and available in Grey and White.

TYPICAL PROPERTIES

Wet density	1.68 kg/L
Tensile Strength ASTM D412	
Air cured @ 28 days	> 0.7 N/mm ²
Water cured @ 28 days	> 0.5 N/mm ²
Elongation ASTM D412	
Air cured @ 28 days	> 37%
Water cured @ 28 days	> 30%
Water Resistance DIN 1048	7 bar
Water Absorption ASTM C642-15	< 1.5%
Liquid water permeability BSEN 1062-3 2008	Class W3
Static crack bridging EN 14891 A.8.2	>1.5 mm
Dynamic crack bridging ability BSEN 1062-7 2004	>1mm @ 20000 cycles
Freeze-Thaw resistance ISO DIN 4846.2 / EN 13687-1	No failure
Carbon dioxide permeability BS EN 1062-1	Class C1
Adhesion Strength (concrete) @ 28 days EN 1542	> 0.8 N/mm ²
Maximum particle size ASTM E 2651-10	300 microns
Pot life	Approx. 60 min
Drying time	Approx. 360 min

APPLICATION GUIDELINES

SUBSTRATE PREPARATION

The surface to be coated must be clean and sound. Remove all traces of formwork, release agents, previous coatings, laitance, organic growth and any other contaminants that may affect the bond adversely. Suitable cleaning methods include ultra high-pressure water jetting, grit blasting and grinding. Aggressive percussive methods such as scabbling or scarifying are not recommended unless followed by grit blasting, wire brushing or high-pressure water jetting. After the above treatment, surfaces must be thoroughly rinsed with clean potable water to remove all dust and loose particles.

Cracks bolt holes and large surface defects must be cut out and filled solid with **MasterSeal 590** or one of the **MasterEmaco** range of repair material.

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Small blowholes in the concrete should be filled with a thixotropic mix of **MasterSeal 588** Powder with reduced liquid content.

MIXING

MasterSeal 588 is supplied in premeasured units and should be mixed on site utilising clean containers. Slowly add the powder to the liquid and mix, using a slow speed drill fitted with a suitable paddle. MIX AND USE. Do not mix more material than can be used in one hour.

Do not allow the mixed material to exceed 32°C.

PLACING / APPLICATION

Apply **MasterSeal 588** in two coats at minimum 1mm thickness per coat. Apply subsequent coats once the initial coat has dried.

All corners, joints and cracks must be reinforced with a mesh. Consult Technical Department for further information on reinforcements.

CURING

Under hot or excessive drying conditions adequate protective shielding should be foreseen.

In cold, humid or unventilated areas it may be necessary to leave the application for a longer curing period. **MasterSeal 588** needs to cure under dry-air conditions. Additional heating and/or ventilation can assist proper curing. NEVER use dehumidifiers during curing periods.

COVERAGE / YIELD

Approx. 1 L / m² / coat @ 1 mm thickness 2 layers recommended.

An additional 0.5 kg/m² is required when embedding Master Builders Solutions approved mesh.

Yield

Approx. 20.83 L / 35 kg unit.

STORAGE AND SHELF LIFE

Part A (powder): Shelf life is 12 months from date of manufacturing in unopened original bags.

Product must be kept out of direct sunlight, in a dry, cool place, stored clear of the ground on pallets. Avoid excessive compaction.

Part B (liquid): Shelf life is 12 months from the date of manufacturing in unopened original containers.

Product must be kept out of direct sunlight and in a dry, cool, preferably air-conditioned warehouse. Store clear of the ground on pallets. Do not stack pallets.

HEALTH AND SAFETY

MasterSeal 588 Powder is cement based and may be irritating to the skin and eyes. Gloves and eye protection should be worn. The use of dust masks is recommended.

MasterSeal 588 Liquid should not be ingested, accidental splashes of the material to the skin or eyes should be immediately washed off with clean water. In the event of prolonged irritation, seek medical advice.

MasterSeal 588 contains no solvent, safe to handle and use approved for contact with potable water. For further information refer to the material safety datasheet.

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QUALITY AND CARE

All products originating from Master Builders Solutions Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001 and ISO 14001.

* Properties listed are based on laboratory controlled tests.

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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this Master Builders Solutions publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by Master Builders Solutions either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not Master Builders Solutions, are responsible for carrying out procedures appropriate to a specific application.

**Master Builders Solutions
Construction Chemicals LLC**
P.O. Box 37127, Dubai, UAE
Tel: +971 4 8090800
www.master-builders-solutions.com/en-ae



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