

MasterSeal® 540

Flexible, polymer cement waterproofing slurry

DESCRIPTION

MasterSeal 540 is a two part, prepacked system, consisting of a liquid polymer as Part A and a premixed powder as Part B. The two parts on mixing yield a brush able, smooth slurry with excellent bond to most substrates. The product is based on selected synthetic resins and cements.

MasterSeal 540 is in compliance with Bureau Veritas Potability test for used in drinking water reservoirs or tanks.

Surface Spread of Flame test: BS 476:Pt.7:71 (passes Class 1)

RECOMMENDED USES

MasterSeal 540 is designed to be used as an effective waterproofing membrane on a variety of substrates. Applications include:

- Waterproof coatings to the internal faces of water tanks, sumps, reservoirs, planter boxes etc., before tiling or other surface finishing.
- Treating terraces, balconies, kitchen and toilet floors as a sandwich treatment, to prevent water ingress.
- Treating bridge and flyover decks before wearing course to protect concrete from rainwater ingress.

FEATURES AND BENEFITS

- Polymer modified – Improved bond strength on a variety of substrates.
- Permeable to water vapours - Allows surface to breath, preventing build-up of moisture in structure, reducing maintenance.
- Flexible - Can withstand moderate movement of hairline cracks. Bridges cracks up to 0.3mm in width, reducing maintenance.
- Weather resistant - Suitable for use in exposed conditions.
- Brushable consistency - Easily applied by brush or spray.
- Non-toxic – Can be applied onto surfaces in contact with drinking water

PERFORMANCE DATA

Criteria	Results
Pull off Bond Strength	~1MPa
Water Penetration (0.5kg/cm ²)	< 0.1mm
Coefficient of permeability (3kgf/cm ²)	2.27 x 10 ⁻¹³ m/s
QUV Accelerated Weathering Test (ASTM G53:93, Type A)	Gray scale: 4-5 (1000 hours) 2-3 (2000 hours) (Gray Scale 1 denotes severe discolouration; 5 denotes mild or no discolouration.)
VOC	0.5 g/L

PROPERTIES

	Part A	Part B
Supply Form	Liquid	Powder
Color	White	Grey
Working Time @ 20°C @ 30°C	1 hour (approx.) 0.5 hour (approx.)	
Application Temperature	>5°C	

APPLICATION

Surface Preparation

Correct substrate preparation is critical for optimum performance. Surfaces should be structurally sound direct tensile strength of more than 1.5MPa via a pull off tester with a load rate of 100N/s), clean, and free from laitance, loose particles, oil and grease, old coatings, curing compounds or any other contaminants.

Remove oil or grease and wax contaminants by scrubbing with industrial grade detergent or degreasing compounds before mechanical preparation. Cement laitance, loose particles, mold release agents, curing membranes and other contaminants must be removed from the surface by shot-blasting, grinding, or scarifying followed by vacuum cleaning.

MasterSeal[®] 540

Prior to priming use MasterEmaco[®] repair mortars to achieve a smooth and level surface by filling holes and irregularities.

Mixing

Mechanical mixing is necessary. A slow speed (300 rpm), heavy duty electric drill with a wing type paddle is recommended. Place approx. 75% of Part A of the pack in a clean pail. Keeping the mixer running, add the Part B slowly. Mix for at least 3 minutes to get a lump-free homogenous mix. While continuing to mix, add all, of the remainder of Part A if applying on a horizontal surface, or a part of it if applying on vertical surfaces till the required consistency is obtained. Allow to stand for 2-3 minutes and remix before application.

Placing

It is extremely important that the area being treated is shaded from direct sun and wind to prevent rapid drying of the coating.

CURING

MasterSeal 540 must be protected against rapid drying due to direct sun exposure, high temperatures or wind. Curing by wet burlap, polyethylene sheet or a curing compound such as MasterKure 181 or 128 is recommended.

CLEANING

Clean tools using water and rags before the resin system hardens. Hardened material can only be removed mechanically.

ESTIMATING DATA

The recommended coverage of **MasterSeal 540** is 1 kg/m² per coat to obtain an approximate wet film thickness of 0.8 mm (± 0.08mm).

Actual coverage depends upon the method of application, the texture and porosity of the surface. Therefore, material requirement is approximately 2 kg/m² for a total dry film thickness of 1 mm (± 0.1mm) in two coatings.

PACKAGING

MasterSeal 540 is available in 18 or 36 kg packs.

5 or 10 kg of Part A in a plastic container

13 or 26kg or Part B in a paper bag

SHELF LIFE

MasterSeal 540 can be kept for 12 months in original unopened packing when stored indoors. Do not store in direct sunlight and avoid allowing the material to freeze which will render the material unusable.

PRECAUTIONS

For detailed Environmental, Health and Safety information, please consult and follow all instructions on the product Material Safety Data Sheet. Contact your local Master Builders Solutions office for the latest version.

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.

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