



The Chemical Company

MASTERSEAL[®] 540 – BARRALASTIC

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 brushable, smooth slurry with excellent bond to most substrates. The product is based on selected synthetic resins and cements.

MASTERSEAL 540 is suitable in :

- Contact with Potable Water - WRC (UK)
- Contact with Potable Water - SS245:81, Appendix H
- Contact with Potable Water - Albury Lab. (UK)

MASTERSEAL 540 is in compliance with :
Bureau Ventas Potability test for used in drinking water reservoirs or tanks.

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

FIELDS OF APPLICATION

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 & toilet floors as a sandwich treatment, to prevent water ingress.
- treating bridge & 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 vapour pressure.
Flexible	Can stand moderate movements of hairline cracks. Crack bridging up to 0.3 mm crack width.
Resistant to weathering	Suitable for use in exposed conditions.
Brushable consistency	Easy to apply by brush or spray.
Non toxic	Can be applied on surfaces in contact with drinking water.

TYPICAL PERFORMANCE DATA

Pull off bond strength	: 0.9N/mm ²
Water Penetration Test (0.5kg/cm ²)	: <0.1mm
Coefficient of Permeability (0.3kgf/cm ²)	: 2.27 x 10 ⁻¹³ m/s
QUV Accelerated Weathering Test (ASTM G53:93, type A) (1000 hours) & (2000 hours)	: Gray Scale 4-5

Note:

Gray Scale 1 denotes severe discolouration and Gray Scale 5 denotes mild or no discolouration.

PROPERTIES

	Part A	Part B
Supply form	Liquid	Powder
Colour	White	Grey
Working time		
	@ 20°C	: 1 hr (approx.)
	@ 30°C	: 0.5 hr (approx.)
Application temperature	: > 5°C	

APPLICATION

Surface Preparation

Correct substrate preparation is critical for optimum performance.

Surfaces should be structurally sound, clean, and free from loose particles, oil, grease, or any other contaminants.

Cement laitence, loose particles, mould release agents, curing membranes, and other contaminants must be removed by wet grit blasting, high pressure water jetting (approx. 150 bars) or such other effective methods.

Fill surface irregularities such as blow holes, honeycombs etc., with an EMACO repair mortars to achieve a smooth and level surface.

Saturate the prepared substrate with clean water before applying **MASTERSEAL 540**.

Mixing

Mechanical mixing is necessary. A slow speed (600 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.

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Placing

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

CURING

Slow drying of **MASTERSEAL 540** membrane ensures homogenous curing and high waterproofing characteristics.

MASTERSEAL 540 must be protected against rapid drying due to high temperatures or wind. Curing by wet burlap, polyethylene sheet or a curing compound such as MASTERKURE 181 is recommended.

Note : Worm - gear type of sprayers do not normally have a mixing arrangement. Therefore, material has to be mixed separately and fed to the spraying machine.

CLEANING

Clean tools and equipment with water, before the waterproofing coating hardens.

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.

Note: Avoid using part packs.
Use only mix of complete pack.

PACKAGING

MASTERSEAL 540 is available in 36 kg packs containing 26 kg of Part B in a multi-ply paper sack with polythene liner, and 10 kg of Part A in a plastic container.

For large jobs, bulk packing of Parts A and B are also available.

SHELF LIFE

MASTERSEAL 540 can be kept for 12 months from date of manufacture if stored in tightly sealed original packaging, in dry and cool enclosed area.

PRECAUTIONS

For detailed Health, Safety and Environmental recommendations, please consult and follow all instructions on the product Material Safety Data Sheet.

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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this **BASF Construction Chemicals** 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.

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