



The Chemical Company

MASTERSEAL[®] 555S

Flexible, polymer cement waterproofing slurry

DESCRIPTION

MASTERSEAL 555S is a prepacked, two component system, consisting of a liquid polymer as Part A and a premixed powder as Part B. The two parts on mixing yield a flexible waterproofing coating with excellent flexibility and crack-bridging capability.

The product is based on selected synthetic resins and cements.

FIELDS OF APPLICATION

MASTERSEAL 555S is recommended as a waterproofing membrane below concrete, mortar, tiles etc. Typical applications include:

- bridge decks.
- wet rooms, bathrooms and kitchens
- terraces and balconies

It is also suitable as a waterproofing coating to concrete structures such as:

- bridge parapets, beams and pillars
- reservoirs, sumps and tanks.
- foundations below and above ground

MASTERSEAL 555S is not suitable as a trafficable membrane. For this application, it is advisable to protect the cured membrane by covering with concrete or tiles.

FEATURES AND BENEFITS

Flexible	Bridges cracks up to 2 mm when subject to normal movements.
Permeable to water vapours	Allows surface to breath, preventing build up of vapour pressure.

TYPICAL PERFORMANCE DATA

Water vapour permeability, (ASTM E96:94)	: < 30 g/m ² /day
Tensile strength (ASTM D412-92),	: > 1.52 N/mm ²
Elongation at break (ASTM D412-92)	: > 250 %
Crack bridging (adopted from ASTM 836-89)	: Up to 2mm.
Hardness (ASTM 2240 - 9), shore A	: > 60
Flexibility test, magnification 10 X	: no crack

PROPERTIES

	Part A	Part B
Supply form	Liquid	Powder
Colour	White	Grey
Mixing proportions by weight (Part A: Part B)	: 1:1.25	
Density of mixed material	: 1.55 kg/L	

Application temperature	: 5°C-35°C
Pot life @ 20°C	: 2 hrs.
@ 30°C	: 1 hr.
Working time @ 30°C	: 60 mins.
Curing time @ 30°C touch dry	: 45 mins.
recoating time	: Min.2½ hr.
full cure	: 28 days

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 contaminant. Cement laitence, loose particles, mould release agent, curing membrane, 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 EMACO repair mortar to achieve a smooth and level surface.

Saturate the prepared substrate with clean water before applying **MASTERSEAL 555S**.

Mixing

Mechanical mixing is necessary. A slow speed (600 rpm), heavy duty electric drill with a wing type paddle is recommended. Place half to two thirds of Part A (white liquid) in the clean container supplied. Keeping the mixer running, add Part B (powder component) slowly and steadily. Add the remaining liquid and mix for at least 2 minutes until a homogeneous lump free consistency is obtained.

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.

Apply **MASTERSEAL 555S** evenly using a roller block brush. or by a notched trowel, onto the prepared surface, to give a continuous film. In case of large areas **MASTERSEAL 555S** can be spray applied using a worm-gear type of spray equipment.

Apply at least two coats perpendicular to each other with an average wet film thickness of 0.75 mm each. To avoid pin holes, apply the second coat at right angles to the direction of first. Ensure that no air is entrapped in the membrane during application.

If during the application the mix stiffens, discard it and prepare a fresh mix for application.

Do **not** apply on external surfaces if rain is anticipated within 2 hrs.

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Curing

Slow drying of **MASTERSEAL 555S** membrane ensures homogenous curing and high waterproofing characteristics, however, **MASTERSEAL 555S** must be protected against rapid drying due to high temperatures or wind. No further curing treatment is required.

Any subsequent, compatible paint finish may be applied after 7 days.

EQUIPMENT

Mixing : A heavy duty slow speed (approx. 600 rpm) drill fitted with a wing type mixing paddle.

Placing: Worm-gear type spraying machine, roller or block brush.

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 coating hardens.

ESTIMATING DATA

The minimum recommended coverage of **MASTERSEAL 555S** is 0.9 – 1.0 kg/m² per coat to get approx. 0.65 – 0.75 mm thick wet film build. Therefore, for two coats, the material requirement is 1.8 – 2.0 kg/m². Actual coverage depends upon the method of application, the texture and porosity of the surface.

PACKAGING

MASTERSEAL 555S is supplied in the following packs:

Pack size	Part A	Part B
45 kg	20 kg	25 kg

SHELF LIFE

MASTERSEAL 555S can be kept for 12 months from date of manufacture if stored in original unopened packing, in a dry enclosed place, without exposing to direct sunlight.

PRECAUTIONS

Fire : **MASTERSEAL 555S** is not flammable

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.

NOTE

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