



MAXSEAL®

CEMENT-BASED WATERPROOF COATING FOR CONCRETE AND MASONRY

DESCRIPTION

MAXSEAL® is a cement-based mortar with special additives and aggregates. Once cured, it becomes a waterproof coating for use on concrete, brick, concrete block, mortar render and masonry substrates. Provides a seal to Negative and Positive water pressure.

APPLICATION FIELDS

- Waterproofing and coating of drinking water tanks.
- Waterproofing of swimming pools.
- Waterproofing of tunnels, galleries, basements and elevator pits subject to high water pressure.
- Waterproofing and protection of concrete in water treatment plants, settling tanks, etc.
- Coating for waterproofing of dams and retaining walls.
- Waterproof coating for façades and wall faces, concrete blocks and prefabricated panels.
- Restoration and waterproofing of channels.
- Waterproofing and decorative finish for silos and cooling towers in thermal power plants.

ADVANTAGES

- Excellent waterproofing properties. Withstands both positive and negative hydrostatic pressures.
- Allows application on wet substrates.
- The coating allows the substrate to breath it does not form a water vapour barrier.
- Final layer of **MAXSEAL®** can be used as a decorative finish, saving further painting.
- Easy to use, no maintenance required.
- Resistant to aggressive environment such as seaside and zones with atmospheric pollution.
- It resists weathering and freeze/thaw cycles longer lasting than paints and other coatings.
- Very good adhesion as it forms part of substrate. It fills and seals all pores and becomes part of the structure.
- Suitable for use in contact with drinking water.
- Once **MAXSEAL®** is cured, it can be rendered or painted.
- Environmentally friendly.



APPLICATION INSTRUCTIONS

Surface preparation

MAXSEAL can only be applied to a medium to high porosity surface as this product requires porosity for a total bond.

Repair and fill all suspect areas, the entire surface to be coated should be **thoroughly saturated** with clean water. Allow excess water to drain before applying **MAXSEAL®**. Do not leave free-standing or pooled water on the surface. The surface to be coated must be solid and clean, free of all traces of paint, **efflorescence**, loose particles, grease, form-stripping oils, dust, gypsum plaster, etc.

IT IS THE RESPONSIBILITY of the applicator to determine whether a structure contains any form of **efflorescence** **PRIOR TO APPLICATION**. Any traces of efflorescence in negative waterproofing must be removed.

Please refer to efflorescence specification.

Mixing

Add three parts of **MAXSEAL** to one part of clean water in a clean container. Mixing is best done by mechanical means only, such as a slow speed mixing drill (400-600 rpm). Small quantities may be mixed manually with a trowel. When mixing manually care must be taken to ensure product is mixed thoroughly. Mix until a thick creamy paste free of lumps is achieved (mixing time about 1 to 2 minutes). Allow the mixture to rest for 5 minutes and then remix briefly prior to application. A 25 kg bag requires approx. 7 to 8 ltrs of water approx , optimum, temperature range from 15 °C to 28 °C.



Application

In order to fill and cover all pores and voids, **MAXSEAL** should be applied using a fibre brush or a nylon fibre broom, such as **MAXBRUSH** or **MAXBROOM** respectively.

Apply the product on the surface in a thick layer, making in a homogeneous and continuous coating. Do not spread the product as if it were paint. Once **MAXSEAL®** has been spread, it must not be brushed again. A second layer must be applied in the perpendicular direction of the first one, with a waiting-time of 12-16 hours between layers. Second layer may be texture rolled or trowel finished to achieve decorative finishes. **MAXSEAL** can be applied using spray equipment.

In order to ensure complete and uniform coverage and proper sealing of all voids etc, the sprayed area should be brushed or broomed.

If **MAXSEAL** is going to be rendered over, on vertical surfaces, it is advisable to apply the second layer horizontally.

For pipelines, the second layer should be applied in the direction of the water flow.

Application conditions

The optimum temperature range for application is from 15 °C to 20 °C. Do not apply **MAXSEAL** if rain is expected within 4-6 hours after the application.

In winter, do not apply **MAXSEAL** below 5 °C or if such temperatures are expected within 24 hours after application. Do not apply the coating on frozen or frosted surfaces.

For applications during hot temperatures and windy conditions, i.e. summer time, the surface must be wet with plenty of water. Once **MAXSEAL** has been applied, if product appears to be drying out too quickly spray the surface slightly with a fine mist of water.

Curing

Allow **MAXSEAL** to cure for at least 7 days at 20 °C and 50% of relative humidity prior to immersion in water. Lower temperatures and higher relative humidity increase the curing time.

Cleaning.

Before product hardens, all tools and equipment must be cleaned immediately with water. Cured material can only be cleaned by mechanical means.

CONSUMPTION

MAXSEAL is applied in two layers. The estimated coverage is 1-1,5 kg/m² per layer with a total coverage of 2-3 kg/m². These figures may vary depending on substrate conditions.

A preliminary test on-site will determine the coverage exactly:

PACKAGING

MAXSEAL is supplied in 25 kg bags 14kg Handi Pack and 5 kg cans.

MAXSEAL is available in standard grey and white.



STORAGE

Twenty four months in its original unopened bag or drums respectively. It must be stored in a dry and covered place, protected from frost, with temperatures above 5 °C.

IMPORTANT INFORMATION

- Do not use on gypsum plaster surfaces.
- Do not add cements, additives or aggregates to **MAXSEAL®**.
- Do not use **MAXSEAL®** in contact with very soft water. If sulphates are present in water, contact Technical support before use.

CAUTION:

DO NOT apply in excess of 2 layers.
DO NOT apply to bitumen or polyurethanes.
DO NOT place plastic or core flute protection boards against treated surfaces prior to back filling.
Drainage cell and aggregate can be placed..

Curing:

During curing, water vapour may condense on the Surface in poorly ventilated areas.

Allow surface to cure for 3 days prior to back filling and 7 days prior to filling structure with water.

SAFETY AND HEALTH

As all cementitious products, **MAXSEAL** is an abrasive compound and both protective rubber gloves and goggles must be used to prepare and apply the mixture. In case of eye contact, rinse thoroughly with clean water, but do not rub. In case of skin contact, wash affected areas

with soap and water.

If irritation continues, seek medical attention.

For further information, Safety Data Sheet for **MAXSEAL**® is available by request.

Disposal of the product and its empty containers must be made according official regulations. This disposal must be made by the final user.

TECHNICAL DATA

Permeability to water under pressure negative conditions

After 180 mins. from 3,5 kp/cm² pressure was applied, there was no passage of water though **MAXSEAL**®- lined surface. Test was interrupted by breaking of test-pieces.

Permeability to rain water

A water flow, 120 l/m² · h, with wind, is applied on the surface of **MAXSEAL**® of testing, no water or dampness is seen to seep through the coated wall. After 4 hours

Permeability to water vapour diffusion

MAXSEAL® allows the substrate on which it is applied to breath.

Frost resistance

After 56 freeze-thaw cycles in water, specimens fulfill the demands for very good frost resistance. Scaling = 0,02 kg/m² (SS 137244)

Adhesion

Perpendicular traction pull off test: 24,7 kp/cm² (UNE 83.822)

Mechanical Resistances (UNE 83.821)

Age	N/mm ²	
	Flexural Strength	Compression Strength
7 days	4,90	33,0
28 days	7,55	40,7

Suitability for direct contact with drinking water

MAXSEAL® is approved as coating in direct contact with drinking water (BS 6920)

Flammability rating

MAXSEAL® is classified M-0. It is non-combustible and non-flammable. (UNE 23727:1990)

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MAXJOINT[®] ELASTIC

THE ELASTIC MORTAR FOR SEALING JOINTS SUBJECT TO MOVEMENT IN CONCRETE,

PREFABRICATED AND CERAMIC ELEMENTS THAT TICKS  ALL THE BOXES - YES

-  Will only adhere to wet/damp surface NO bonding agent needed
-  Will adhere to wet/green concrete or other porous substrate
-  Will seal active cracks in porous surfaces, pointing mortar for substrates subject to movement
-  Suitable for joints in permanent negative or positive contact with water
-  NON slump – Non run on vertical joints in pre-fab. panels, ceramic, concrete facades.
-  NON-TOXIC, NON FLAMMABLE, ENVIRONMENTALLY FRIENDLY.
-  Can be painted over using Paint or Maxseal Flex
-  CLEANS UP WITH WATER

WILL OTHER JOINT SEALERS DO THE SAME  - NO

Optimum application temperature	5 - 30 OC
Joint unhitching	None
Inservice joint movement	15%
Shore A Hardness, ISO 868	37
Elastic modulus 60%, EN 28339	0,38 MPA
Tensile strength, EN 28339	0,38 MPA
Elongation at break, EN 28339	60%
Elastic recovery, EN 27-389	78%



Approximate Consumption		
Joint size (mm)	kg / lineal metre	Lineal metre per 10 kg set
10 x 5	0,065	153
15 x 7,5	0,140	71
20 x 10	0,250	40
25 x 12,5	0,400	25
30 x 15	0,570	17

Technical Support: Phone 02 9771 0011

www.scientificwaterproofingproducts.com.au

