



MAXSEAL®

CEMENT-BASED WATERPROOF COATING FOR CONCRETE AND MASONRY



DESCRIPTION

MAXSEAL® is a cement-based mortar with special additives and controlled aggregates. Once cured, it becomes a suitable waterproof coating for use on concrete, brick, concrete block, mortar render and masonry substrates.

APPLICATION FIELDS

- Waterproofing and coating of drinking water tanks.
- Waterproofing of swimming pools.
- Waterproofing of tunnels, galleries, basements and elevator pits subjected to high water pressure.
- Waterproofing and protection of concrete in water treatment plants, setting 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 and thereby it does not form a water vapour barrier.
- Final layer of **MAXSEAL®** can work as a decorative finish, saving further enhancing paint costs.
- Easy to use and no maintenance required.
- Resistant to aggressive environment such as seacoasts and zones with atmospheric pollution.

- It resists weathering and freeze/thaw cycles, longer lasting than paints and other coatings.
- Very good adherence to substrate. It fills and seals all porous of the surface and becomes part of the structure.
- Suitable for use in contact with drinking water.
- Once **MAXSEAL®** is cured, it can be covered with protective or fixing mortars, such as **CONCRESEAL PLASTERING®** (Technical bulletin n° 6) and **MAXKOLA®** (Technical bulletin n° 32).
- Environmentally friendly.

APPLICATION INSTRUCTIONS

Surface preparation

Surface to be treated must be clean, sound and free of paints, efflorescence, greases, oils, demoulding agents, dust, gypsum, etc. If the surface has been previously coated then at least 80% of the coating must be removed by water pressure cleaning, sand blasting etc.

Before the application of **MAXSEAL®**, all holes and cracks must be opened up at least 1,5 cm and then, patched with **MAXREST®**. If water leaks are present, **MAXPLUG®** should be used. In case of superficial non-structural bars are present, these must be cut at least 2 cm and then, prior to the application of **MAXSEAL®**, area should be patched with **MAXREST®** or **MAXPLUG®**.

Once surface has been repaired, the entire surface to be coated should be thoroughly saturated with clean water. Allow excess water to drain away before applying **MAXSEAL®**. Do not leave free-standing water on the surface.

Mixing

One part of **MAXCRYL®** and three parts of clean water are poured into a clean container in order to produce a mixing liquid to which **MAXSEAL** is added. Mixing is best done by mechanical means 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 from 6,25 to 7 l of mixing liquid (**MAXCRYL®**-water), while only water may be used if both the surface conditions and the temperature are optimum, i.e. porosity surfaces, as well as ambient temperatures in the range from 15 °C to 20 °C.

Application

In order to fill and cover properly all pores and voids, **MAXSEAL®** should be applied by means of 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 up an homogeneous and continuous coating. Do not spread the product as if it were a 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. This second layer may be applied by either roller or trowel to achieve decorative finishes.

MAXSEAL® can be applied also by spray equipment. However, in order to ensure complete and uniform coverage and proper sealing of all voids etc, the fresh sprayed product should be brushed or broomed.

If **MAXSEAL®** is going to be rendered 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 and **MAXCRYL®** as mixing liquid must be used. 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 only can 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 and drums, and 5 kg cans.

MAXSEAL® is available in standard grey, white and pearl grey. Other special light colours, **MAXSEAL® DECOR** are manufactured by request.



STORAGE

Twelve months or 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 INDICATIONS

- Do not use onto 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, use **MAXSEAL® ANTISULFAT**.
- In case of doubt related to the water to be in contact with **MAXSEAL®**, or further information, consult our Technical Department.

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.

GUARANTEE

The information contained in this leaflet is based on our experience and technical knowledge, obtained through laboratory testing and from bibliographic material. **DRIZORO®** reserves the right to introduce changes without prior price. Any use of this data beyond the purposes expressly specified in the leaflet will not be the Company's responsibility unless authorised by us. The data shown on consumptions, measurement and yields are for guidance only and based on our experience. These data are subject to

variation due to the specific atmospheric and jobsite conditions so reasonable variations from the data may be experienced. In order to know the real data, a test on the jobsite must be done, and it will be carried out under the client responsibility. We shall not accept responsibility exceeding the value of the purchased product. For any other doubt, consult our Technical Department. This version of bulletin replaces the previous one.

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®** - lined wall. After 4 hours of testing, no water or dampness is seen to seep trough the wall.

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 fulfil 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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ISO 9001



ISO 14001.



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