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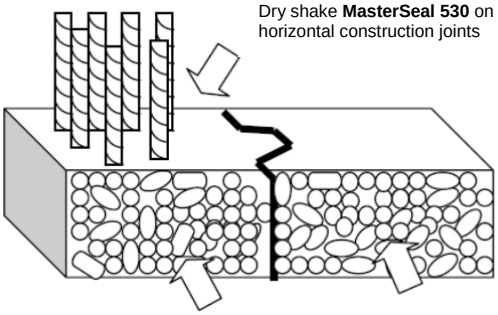
MasterSeal® 530

Surface applied capillary waterproofing for concrete and mortar

DESCRIPTION

MasterSeal 530 consists of a blend of moisture-activated chemicals, high-grade silica aggregates and selected cements. It waterproofs through the formation and development of crystals in water bearing capillaries and interstices, effectively blocks the further passage of water and ensures permanent water tightness of the structure.



MasterSeal 530 application on vertical construction and day work joints

RECOMMENDED USES

MasterSeal 530 is recommended for areas such as:

- static construction joints (new construction);
- water tanks and towers, reservoirs, dams, canals;
- water treatment works, harbours;
- concrete pipes, sumps, foundations;
- retaining walls, life shafts;
- sea defence walls, bridge decks, jetties, pontoons.

FEATURES AND BENEFITS

- **Forms crystals in concrete pores; waterproofs by becoming an integral part of the structure –** Active ingredients will not delaminate, peel off or wear away.
- **Vapour permeable –** Allows surface to breathe, preventing build-up of vapour pressure.
- **Brushable consistency –** Easy to apply by brush or spray.
- **Unrestricted application –** Effective against both positive and negative water pressure.
- **One component –** Economical to use.

PROPERTIES

Pull off bond strength	1 N/mm²
Supply form	Powder
Colour	Grey
Density (mixed)	2.02 kg/m^3
Permeability (ASTM E96)	12 Perms
Setting time @ 30°C	Initial: 90 min. (approx.) Final: 110 min. (approx.)
Application temperature	>5°C
Toxicity	Non-toxic

ESTIMATING DATA

The recommended coverage of **MasterSeal 530** per coat is:

by brush: 1 – 1.5 kg/m^2
by trowel: 2 – 2.5 kg/m^2

Actual consumption depends on the porosity and surface profile of the substrate and wastage.

APPLICATION

New Construction

MasterSeal 530 can be applied immediately after the formwork has been removed, as the water curing process required for **MasterSeal 530** will also ensure full hydration of the concrete.

If treatment is to be exposed and an aesthetically pleasing finish is required, the **MasterSeal 530**, after curing, should receive a sand / cement render onto which the desired finish is applied.

Existing

Structures subject to water leakage or ingress must be carefully inspected to determine the cause. Any water present should be diverted away so that a thorough survey can be conducted. Static cracks over 1mm must be chased out, dampened down and repaired with a **MasterEmaco®** repair mortar. Dynamic cracks must be formed into watertight movement joints and sealed, using elastomeric sealant.

The rate and penetration of crystalline development will vary with the density and surface absorption of the concrete.

In powder form, the product may be used as a dry shake on horizontal construction joints.

Surface Preparation

Surfaces to be treated must be free from dust, oil, grease, paint, residual curing compound, mould oil or any previous surface treatment that will impair adhesion of **MasterSeal 530** treatment or inhibit penetration of the chemicals into the surface. These include polymer-modified renders and those substrates treated with silicon or silane water repellents. Areas of weak or honeycombed concrete

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MasterSeal® 530

must be repaired. Hollow debonded renders must be removed and made good. Surfaces to be treated that are not damp must be pre-wetted and still be damp at the time of application.

Mixing

Mechanical mixing is necessary. Mix 25kg of **MasterSeal 530** with 7 to 8L of water using a slow speed (60rpm), heavy duty electric drill fitted with a grout stirrer.

When the mixer is running, add clean mixing water to the **MasterSeal 530**powder to achieve the consistency required. Mix for al least 3 minutes to get a lump-free, homogeneous and creamy consistency. If applying to vertical surfaces, water may have to be reduced to achieve the desired consistency to minimise the run off on the surface. Do not add additional water after initial mixing.

Placing

MasterSeal 530 mixes are applied by brush or spray onto the dampened substrate. Apply the material in 2 coats at right angles, the second coat whilst the first is firm, but 'green' – usually 3 to 4 hours after first coat (dependant on temperature).

Plugging leaks

Leaks and holes drilled to relieve water pressure can be sealed permanently using **MasterSeal 590** (water plug).

Note: MasterSeal 530 waterproofing is not suitable for subsequent decoration unless first protected by sand / cement render.

CURING

Slow drying of **MasterSeal 530** membrane ensures homogeneous curing and high waterproofing characteristics. **MasterSeal 530** must be protected against rapid drying due to high temperatures or wind. Cure by wet burlap, plastic sheet or mist spraying.

Curing compounds are unsuitable for use with **MasterSeal 530** system technology. Tanks and other water retaining structures may be filled 24 hours after final **MasterSeal 530** application as crystal growth is accelerated by water pressure.

PACKAGING

MasterSeal 530 is available in 25 kg bags.

CLEANING

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

SHELF LIFE

MasterSeal 530 can be stored in tightly sealed original packaging for 12 months from date of manufacture, if kept dry and at constant temperature.

PRECAUTIONS

MasterSeal 530 is alkaline like normal cement and can cause skin irritations to persons with sensitive skin. Wear gloves and masks while handling the product. For detailed Health, Safety and Environmental Recommendations, please consult and follow all instructions on the product Material Safety Data Sheet.

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