

Hydronil International



DATA SHEET

Multiguard In-depth Type A

In-depth crystalline technology based surface waterproofing product

Product Code No.: H-0201

OVERVIEW

- Capillary/Crystalline (gray and white)
- Penetrate into concrete
- One time application for the life of concrete
- Suitable for Potable water application
- Permanently active
- Tested up to 250 psi (17 bar) pressure
- Applied to moist (damp) substrate

INTRODUCTION:

MULTIGUARD IN-DEPTH type A is a state-of-the-art single component, most active cementitious material which waterproof and protect new or old structurally sound concrete or concrete masonry in-depth. It resists strong hydrostatic pressure and is not a vapour barrier (let concrete breathe).

USES:

- ▲ All below grade concrete
- ▲ Marine structures
- ▲ Bridge decks, tunnels
- ▲ Sewage and water treatment plants
- ▲ Reservoirs and storage tanks
- ▲ Swimming pools, marine aquariums
- ▲ Parking slabs and driveways
- ▲ Concrete walls, floors, patios and roofs
- ▲ Elevator and maintenance pits
- ▲ Hydro electric and power generation stations.

ADVANTAGES:

Environmentally friendly. Permanently active. Easy to use-needs only water for mixing. Can be applied to green concrete as soon as forms are stripped. Protects concrete against fresh water, salt water, waste water and aggressive ground water. Brush, dry-sprinkle or spray applied. Resists strong hydrostatic pressure (tested up to 220 psi = 170 m head pressure). Seals and post seals shrinkage cracks, up to 0.4 mm, contains no chlorides. Protects concrete in-depth, concrete remains waterproofed even if coating is damaged. Applied to positive or negative water pressure side. No odor-no fumes. Cost effective.

PROPERTIES:

MULTIGUARD IN-DEPTH Type A contains active waterproofing chemicals which create catalytic reaction when in contact with moisture, and cementitious products in the concrete, generating insoluble crystalline complexes which seal the capillaries tracks, pores and minor shrinkage cracks. They penetrate even against strong hydrostatic pressure, becoming an integral part of

the concrete. As the reaction is catalytic in nature the waterproofing chemicals remain active for the life of the structure, permanently sealing it from water and waterborne chemicals penetration. The crystals continue to grow as long as moisture is present, often reaching several feet in length. Once moisture is removed, the chemicals remain dormant in the concrete, ready to be reactivated by water even years later if new non-structural cracks (which are <0.4mm) develop through natural settling or other factors.

PHYSICAL PROPERTIES

Color	gray
Appearance	powder
Solids	100%
Bulk density	1.16
PH	13
Rate of Penetration	2.3 mm per week
Particle size	50 - 150 microns
Water Pressure	170 m (when used as 2 coats)
Shelf Life	2 years (when kept dry place)

PREPARATION OF SUBSTRATE:

The substrate must be sound clean, and have an open capillary system (tooth and suction) and feel like fine sand paper to insure mechanical bond and allow **Multiguard In-depth** chemicals to penetrate. Horizontal surfaces should have a rough wood float or broom finish. Smooth formed wall, or smooth troweled slabs, must be roughened, otherwise **In-depth** application may not achieve sufficient bond and penetration.

1. Remove all dirt, cement laitance, form release agents, curing compounds, loose particles, paints, etc, by means of acid etching, wet or dry sandblasting, high pressure water blasting other suitable mechanical means.
2. Remove all protrusions, work back to sound concrete, chiseling out any honeycombed or damaged areas, faulty construction joints and visible cracks not subject to movement, exceeding 0.4 mm should be routed out to a U shaped configuration approx. 25 mm wide and a minimum 40 mm deep. Make sure that all construction joints and free from soil, other non-cementitious materials.
3. Stop active water leakage using **PlugFast** or chemical additive for severe infiltration.
4. Fill repair areas flush with surface using repair mortar, **Multiguard In-depth Mortar (MIM)**.
5. Thoroughly rinse all the surfaces to be waterproofed with clean water. Pre-water several times so that the concrete or masonry is saturated to control surface suction and ensure the growth of the crystalline formation deep within the pores of the substrate. When **In-depth** is applied the surface should be damp, but not wet. Any surface water on horizontal surfaces must be removed.

APPLICATION:

⇒ Do not apply **In-depth** at temperature below 5 °C or to a frozen substrate. For temperature of 32 °C and above consult our office.

⇒ Do not apply to a dry substrate.

Horizontal Substrate and Construction Joints

A. Dry-Sprinkle and Power-trowel or Wooden Float Application:

A trial dry-shake application is recommended prior to the actual application.

♦ Standard application for concrete with design strength up to 4000 psi: When the concrete to be treated starts to reach initial set, the specified amount of **In-depth Type A or B** is dry distributed by hand, using a sieve or similar device, onto the concrete surface. It is then troweled in until coverage is uniform and the specified finish is achieved.

♦ Obtain technical guidance from our office for concrete > 4000 psi.

B. Mud Slabs/Split Slabs/Construction Joints:

♦ Apply **In-depth Type A** in slurry form or **Type B** dry powder consistency to prewatered concrete substrate, "mud slab", split slabs or construction joints immediately prior to casting the structural slab or wall.

C. Brush or Spray Application:

⇒ Note: Slab surfaces must have a rough wood float or broom finish.

♦ Apply **In-depth Type A** in slurry consistency in the specified quantity, in one coat.

Verticle Surfaces and Construction Joints

A. Brush Application:

♦ Apply **In-depth type A**, in the specified quantity, in a slurry consistency with a masonry brush. Brush on the material evenly and work it well into the surface. Apply second coat while the first coat is still tacky (green).

B. Spray Application:

♦ **In-depth** may be applied using appropriate compressed air spray equipment. Spray on one or two coats, according to the specification, in circular motion. Apply second coat while first coat is still tacky.

CLEANING:

All tools should be cleaned with water immediately after use.

CURING:

Normal concrete curing procedures should be strictly adhered to. It is important that the surface of the coating is protected from strong sunlight and drying winds with polythene sheeting, and damp hessian or similar.

STORAGE:

Store in dry, frost-free conditions at moderate temperatures not greater than 25 °C.

IMPORTANT POINTS:

1. Apply only to clean, sound substrates. Concrete should be saturated but surface-dry and free of water back pressure.
2. Care should be taken when curing in hot, sunny or windy conditions.
3. Discard **Multiguard In-depth** pack-ages which has been subjected to freezing temperatures.
4. **Multiguard In-depth** is not a decorative finish and may temporarily discolours until uniformly weathered. It may, however, be overcoated with Multichem membranes to produce a coloured finish.

PACKAGING AND COVERAGE:

Pack Size: 25 Kg Bag/Pail

SAFETY DATA:

- Irritating to eyes, respiratory systems and skin.
- Risk o serious damage to eyes.
- Keep out of reach of children.
- In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice.
- After contact with skin, wash immediately with plenty of clean water.
- Wear suitable protective clothing, gloves and eyes/ face protection.



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