



INTEGRACOAT

Crystalline Waterproofing Coating

Product Description:

INTEGRACOAT is a state-of-the-art component, penetrating cementitious material which waterproofs and protects new or old structurally sound concrete. It resists strong hydrostatic pressure and is not a vapor barrier (allows concrete to "breathe"). INTEGRACOAT is powered by Hydrobloc's advanced crystalline technology which chemically reacts with moisture and free lime to reduce the water absorption of the resultant cement matrix within the concrete. This is a result of the formation of nano-scale crystals by the active catalysts present in the capillary system. This sustains a durable waterproof effect in the concrete, thereby blocking the passage of water. This reaction will continue to take place anytime water is present for the life of the concrete structure whereby making the INTEGRACOAT a truly permanent and integral waterproofing solution. The INTEGRACOAT nanocrystals will also grow in and along static hairline cracks sealing them and preventing further incoming water.

Key Features & Benefits:

- Advanced crystalline technology that penetrates deep into the concrete.
- Potable water approved.
- Applied to the moist (damp) substrate
- Environmentally friendly, organic–non–toxic, zero VOCs.
- 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 freshwater, salt water, wastewater & aggressive groundwater
- Resists strong hydrostatic pressure
- Applied to positive or negative side water pressure.
- Seals and post-seal shrinkage cracks, up to 1/64" (0.4 mm).
- Contains no chlorides.
- Cost effective Crystalline.

Areas Of Application:

- Exterior (positive side) or interior (negative side)
- Waterproofing of below-grade foundations, basements, retaining walls, utility vaults, and elevator pits.
- Water tanks, wastewater tanks, water catchment basins, manholes, parking garages, tunnels, and slurry walls.



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Surface Preparation:

The substrate must be sound, clean, and have an "open" capillary system ("tooth and suction") and feel like fine sandpaper to ensure mechanical bond (surface adhesion) and allow INTEGRACOAT chemicals to penetrate. Horizontal surfaces should have a rough wood float or broom finish. Smooth-formed walls, or smooth-troweled slabs; must be roughened, otherwise, INTEGRACOAT application may not achieve a sufficient bond.

- Remove all dirt, cement laitance, form release agents, curing compounds, loose particles, paints, etc. by means of wet or dry sandblasting, high-pressure water blasting (i.e. 4,000 psi (275 bar) adjusting higher or lower depending on 28-day concrete strength) or other suitable mechanical means. Do not apply to smooth slabs.
- Remove all protrusions, work back to sound concrete, and chisel out any honeycombed or damaged areas. Faulty construction joints and visible cracks not subject to movement, exceeding 0.02" (0.4 mm) should be routed out to a U-shaped configuration approx. 3/4" (20 mm) wide and a minimum depth of 1" (25 mm). Fomite holes should be roughened.

Mixing Instructions:

Approximate mixing ratio is by volume:

3 parts powder to 1 part water, 25 kgs powder to 7 to 7.5 litres water.

Add the INTEGRACOAT powder to water and mix thoroughly until the mixture is completely free of lumps. Mix only as much material as can be used within 30 minutes. INTEGRACOAT should be mechanically mixed with clean water to a consistency of thick oil paint. Separate containers (equal volume) should be used for measuring the powder and water.

Application Guidelines:

Brush application: Apply two coats of INTEGRACOAT, 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 the second coat while the first coat is still tacky ("green").

Spray Application: INTEGRACOAT may be applied using appropriate compressed air spray equipment. Spray on one or two coats, according to the specification, in circular movements. Apply the second coat while the first coat is still tacky ("green").

Do not apply INTEGRACOAT at temperatures below 5°C or to a frozen substrate. For temperatures of 32°C and above, make sure the substrate remains damp through consistent water spraying. Do not apply to a dry substrate.



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Curing & Protection:

- **Outdoor, or exposed areas:** Keep damp for a period of 2 - 3 days for standard waterproofing applications, and 7 days for potable water tanks. Start curing as soon as INTEGRACOAT has hardened sufficiently so as not to be damaged by a fine water spray.
- Freshly treated surfaces should be protected from rain for a minimum period of 24 hrs.
- Protect exposed surfaces against direct sun, wind, and frost by covering them with plastic sheeting, burlap, or similar. Do not lay plastic sheeting directly on INTEGRACOAT as air contact is required for proper curing.
- Backfilling can be carried out 36 hrs after the completion of the INTEGRACOAT treatment. Protection boards are generally not required. Backfill material shall be moist and not contain rocks or larger aggregates.

- **Indoor treated areas:** Self-curing in cool areas with high humidity.
- Keep moist for 2 - 3 days in areas with low humidity and 7 days for potable water tanks.
- Provide air circulation for a minimum of 24 hrs. following the INTEGRACOAT treatment in poorly ventilated areas and deep pits.

- **Water Tanks:** Can be carefully filled after 3 days. Do not fill large tanks faster than 6 1/2 feet per 24 hrs (2 m/24 hrs).
- After complete curing of INTEGRACOAT, potable water reservoirs should be thoroughly rinsed with potable water prior to being placed in service. Decoration, Coating and Tiling.

- All surfaces treated with INTEGRACOAT which are to be coated or painted must be left to cure for at least 4 weeks. At the end of the curing period, the surfaces should be saturated with water and neutralized with a 7:8 solution of muriatic acid. Following this, the areas must be thoroughly rinsed with water.
- When a plaster or render finish is required on top of INTEGRACOAT treatments, it is essential to apply a thin, rough cast of sand and cement on the final INTEGRACOAT layer when it has reached the initial set. If this is not practical, carefully clean the hardened INTEGRACOAT surface and apply an appropriate bonding agent prior to rendering.
- Do not use for waterproofing applications under thin set tile mortar (i.e., swimming pools, balconies, etc.).
- Slabs on or below grade to be covered with vinyl tiles or other nonbreathable products (i.e., epoxy, some carpets, resilient flooring, etc.)



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Consumption:

Consumption	No. of coats	Kg's/ Sqm
Damp coating: Normal application	1	0.75
Hydrostatic pressure: Walls, internal – external	2	1.50
Concrete slabs	1	1.00
Top of mud slabs / split slabs	1	1.25
Construction Joints	1	1.00
For salt & wastewater environments	2	1.50

Packaging:

INTEGRACOAT comes in 25Kg sealed moisture-resistant bags.

Storage & Shelf life:

INTEGRACOAT must be stored in a dry enclosed area off the ground. Shelf life in unopened, dry undamaged bags or pails is 72 months.

Health & Safety:

The use of a dust mask, safety goggles and gloves are recommended. This document does not purport to address all the safety concerns, if any, associated with its use. It is the responsibility of the user of this document to establish appropriate safety and health practices and to determine the applicability of regulatory limitations prior to use.

Keep out of the reach of children. Refer to the Safety Data Sheet (SDS) for full handling and disposal information.

Technical Data:

Property	Value
Aggregate state	Powder
Color	Cement grey
Pot life	30 minutes
Setting time	45 mins
Portable water	Safe

