

# DeTop 100

## Concrete Set Deactivator

### Description

DeTop 100 is a topically applied concrete retarder/deactivator used for the production of exposed aggregate concrete finish. Applied on the surface of freshly-poured concrete, DeTop 100 retards the hardening of the top paste layer of the concrete, without disturbing the setting rate and strength gain of the underlying concrete. This allows for easy removal of the retarded top paste on the next day by pressure washing, exposing the aggregates that are firmly bonded to the hardened concrete base.

Unlike conventional washing on the same day or other retarding agents, DeTop 100 selectively halts the hydration process at a controlled depth into the concrete surface, thereby allowing for more controlled and even exposure of the concrete's aggregates. DeTop 100's prolongs the window within which the top paste must be removed, thereby allowing the underlying concrete to set properly and bond firmly to the aggregates, thereby minimizing aggregate pop-out and dislodging.

DeTop 100 is formulated in four different color coded depths of exposure, providing a consistent, controlled, and repeatable cement paste removal and aggregate exposure.

Without the use of DeTop 100, the concrete surface hardens while the surface of the concrete is being brushed and washed, resulting in progressively more shallow exposure from the beginning to the end of a pour. On the other hand, DeTop 100 allows more time and control for exposure, resulting in more uniform exposure throughout the work day and making it possible to cast larger areas. Compared to sandblasting, DeTop 100 is more environmentally friendly and produces a more natural and attractive look with no scarring of the aggregates or matrix.

### Uses

DeTop 100 is used for the production of exposed aggregate concrete finish on horizontal hardscape surfaces. DeTop 100 may be used on concrete treated with Color Crete 500 Integral Color Admixture to produce highly decorative and attractive concrete surfaces.

### Advantages

- Facilitates controlled exposure of the aggregates while minimizing aggregate pop-out.
- Takes the guess work out of exposure: available in 4 predetermined exposure level grades.
- Uniform, repeatable and consistent exposure.
- Expands the window of time for removal of the paste, reducing labor input and effort.
- Easy to use: spray on and wash off with a pressure washer.
- Works in hot climates.
- No scarring of the aggregates or matrix.
- Water-soluble; cleans with fresh water.

### Limitations

Actual depth of set retardation will depend on concrete mix design, cement content, type of fines, finishing technique, weather conditions and other job site factors. DeTop 100 will delay the setting of the concrete surface but will not prevent the final setting of the concrete surface. Therefore, removal of the paste must take place 8 to 24 hours after concrete casting, depending on weather conditions and temperature. Do not use on concrete containing calcium chloride or other set accelerators.

DeTop 100 must be protected from freezing and direct sunlight.

### Depth of Exposure

The depth of exposure will depend on surface porosity of the concrete, time of the application in relation to setting of the concrete, concrete mix design, cement content, time lapse between application and paste removal, water cement ratio, finishing technique, and temperature / weather conditions. Concrete does not cure evenly, therefore variations in paste removal can be expected within the same slab. It is highly recommended to first test on an area or on representative test panels; the size of the test section should be large enough to properly represent the overall slab.

### Coverage

DeTop 100 must be applied full strength; DO NOT DILUTE. Exact coverage rate will depend on the type of sprayer used and porosity of the surface. An 18 kg pail will cover approximately 30– 35 m<sup>2</sup>.

### Application

The concrete should be placed and consolidated so that it completely fills the formwork; vibration and tamping should be minimized so that the aggregates stay near the surface. Screed and float the concrete to the desired finish level and flatness. Special aggregates may also be seeded into the surface of the concrete then tamped in and floated. It is recommended to minimize the use of steel trowels as they may cause aggregates to sink deeper into the concrete; finishing with wood and/or magnesium floats is more desirable for exposed aggregate finish.

DeTop 100 must be applied as early as possible after placement and finishing of the concrete surface.

DeTop 100 will only retard the hydration process but will not reverse it, therefore if it is applied after the concrete surface has begun to set it will not have the desired effect. Apply full strength, do not dilute. Settlement may occur, therefore insure that the contents of the DeTop 100 container are adequately agitated and mixed, preferably by the use of a power drill fitted with a mixing blade. Use a hand-pump heavy duty sprayer, preferably solvent-resistant type, or an automatic high volume, low pressure sprayer. Hold the nozzle at 30– 60 cm away from the surface of the concrete and spray evenly in a continuous motion.

Our recommendations concerning the technical application of the product, whether through oral or written communication or through demonstration, are given to the best of our current knowledge; however, any such instruction shall be without commitment, including where any protective rights of third parties are involved. They do not free you of the obligation to check the products supplied by us for their suitability for the procedures and applications envisaged. The (intended) use and application of the products are beyond our control. They are therefore your personal responsibility. In the event that GAC proves liable, such liability shall be limited in all cases of damage to a sum not exceeding the actual value of the goods supplied by us and used by you. It goes without saying that we guarantee the good quality of our products, in accordance with the standards set out in our General Terms of Sale and Delivery.

# PRODUCT DATA SHEET

## DeTop 100

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Do not apply curing agents to the surface of the concrete over DeTop 100 . Covering by plastic sheeting is not necessary, but during extreme hot or windy conditions, covering with a plastic sheeting may be beneficial to maintain moisture levels at the surface of the concrete. Representative testing is highly recommended.

**Paste Removal:** DeTop 100 extends the window for paste removal by retarding the setting of the top paste. Paste removal can be carried out anytime from when the concrete is stiff enough to walk on, to two days later, depending on temperature and climatic conditions. But for most weather conditions it is best to carry out the washing the next day after casting.

Paste removal can be carried out by several means. For the best and fastest results, high pressure washing is recommended. Paste removal may also be carried out by running water and stiff broom brushing, or running a rotary buffer fitted with a bristle brush while running water.

#### Curing

Curing should be carried out immediately after the aggregates have been exposed either by conventional methods (water flooding) or by the application of the sealer coat. Avoid the use of any materials that contain sodium-silicate or the use of plastic sheeting or misting techniques.

#### Sealing

For enhanced protection of the concrete surface from stains and to bring out the color of the concrete and aggregates, it is recommended that the surface be sealed with a topical sealer such as Sealer ST 200, Shield Sealer 100, Shield Sealer PU 500, or equivalent sealer. Refer to the relevant GAC technical data sheet for application instructions.

#### Cleaning

Clean all tools and equipment promptly with fresh water.

#### Storage & Self Life

- Do not store under direct sunlight, near sources of heat or combustible materials, or in freezing conditions. Container must be tightly sealed and stored upright at all times. Shelf life is 12 months from date of purchase.

#### Packing

18 Kg Pails.

#### Safety Precautions

- FOR PROFESSIONAL USE ONLY. EYE AND SKIN IRRITANT. KEEP AWAY FROM CHILDREN. ACIDIC LIQUID: CONTACT WITH SKIN AND EYES CAN CAUSE DAMAGE. Spray mist is respiratory tract irritant – use under adequate ventilation. Wear proper protection including vapor mask, rubber gloves, goggles, protective clothing, and chemically-resistant apron and boots. DO NOT TAKE INTERNALLY, MAY BE FATAL IF SWALLOWED. FIRST AID: Eye contact – flush with water for at least 15 minutes and seek medical attention immediately. Ingestions – rinse mouth and give large amounts of water and seek medical attention immediately. Contact with skin – wash affected area immediately with soap and water, remove contaminated clothing. Inhalation – move to fresh air and keep victim warm and at rest. If symptoms persist seek medical attention.

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