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BestSeal SS152

Modified Sodium-silicate permeable crystalline waterproofing

Description: BestSeal SS152 is a bio-based waterproofing system that employs a high activation modified sodium silicate waterproofing agent, penetrates crystallization into concrete, does not form a film and lasts for a long time.

Activation mechanism: BestSeal SS152 is always a high-energy activated SiO_2 microcrystal in its free state. When it is sprayed onto concrete (or hydraulic adhesive material), BestSeal SS152 will penetrate quickly and deeply into the surface through capillaries, pores, and microscopic cracks. ... When exposed to molecules $\text{Ca}(\text{OH})_2$ and free CaO in a humid environment (H_2O), high-energy activated SiO_2 microcrystals will quickly create a hydration reaction to form C-S-H crystals that have stable adhesive properties. The C-S-H complex formed has the effect of filling cracks, voids, capillaries, and microscopic cracks inside the concrete, creating solidity and better waterproofing performance.

The unused high-energy activated SiO_2 microcrystals of BestSeal SS152 exist in capillaries, pores, and microscopic cracks... in the form of "spores" that will continue to react when re-exposed to water. $\text{Ca}(\text{OH})_2$ (formed during the hydrolysis and hydration of cement) and water to form C-S-H crystals. This process continues throughout the life of concrete, causing the concrete to have a "self-repairing" feature and become increasingly stronger, more abrasion-resistant, and more waterproof over time.

Uses: *BestSeal SS152 is used for waterproofing, improving strength, and anti-abrasion and is generally suitable for exposed concrete such as:*

- Piers, bridge decks, road surfaces...
- Airport runways, parking lots, aircraft hangars...
- Floor in warehouses for food storage, agriculture, forestry, and seafood...
- Floors, walls, ceilings of basements, tunnels, roof floors, terraces...
- Precast, and reinforced concrete which are often flooded...

Advantage:

- Low viscosity, penetrates quickly and deeply into the surface.
- Does not form a film, allows water vapor to escape so it does not peel, abrasion, or form moss and mold, and is long-lasting.
- Increases waterproofing, hardness, and abrasion resistance.
- Long-lasting activity, autogenous repairing properties to future hairline cracks.
- Does not change the color, state, or aesthetic appearance.
- Simple, easy to apply with available tools such as nozzles, rollers, brushes...
- Non-toxic, environmentally friendly.

PRODUCT INFORMATION

Supply form: Colorless viscous liquid.

Packaging: 25 Liter/can; 210 Liter/ drum.

Condition storage: Place in a dry and cool place. Avoid direct sunlight.

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Shelf-life: At least 24 months from the date of manufacturing in an unsealed container.

Consumption: 5 ÷ 7 m²/liter (Depending on the concrete surface status)

TECHNICAL INFORMATION:

Density:	1.20 ± 0.05 kg/liter @ 25 °C
pH: 12.00 ± 1.00 @ 25 °C	Viscosity: 10 ÷ 20 mPas ⁻¹ @ 25 °C
Adhesion strength Asphalt concrete with concrete:	Concrete 35 MPa: ≥ 1.0 MPa (TCVN 9349:2012) Concrete 40 MPa: ≥ 1.0 MPa (TCVN 9349:2012)
Seals crack up to 2mm:	Concrete 35 MPa: T2/T1 ≥ 2 (AASHTO T259 Modified) Concrete 40 MPa: T2/T1 ≥ 2 (AASHTO T259 Modified)
Waterproofing ability:	Concrete 35 MPa: B12 (TCVN 3116:1993) Concrete 40 MPa: B12 (TCVN 3116:1993)
Effecting of Asphalt temperature (160 °C) on concrete waterproofing ability:	Concrete 35 MPa: Do not effect (TCVN 3116:1993) Concrete 40 MPa: Do not effect (TCVN 3116:1993)

GUIDE TO APPLICATION

- Surface Preparation:**
- The surface must be dry and not contaminated with dirt, grease, or old layers of waterproofing material. fragile or weak adhesion layers need to be removed properly.
 - At least 28 days after the placement of new concrete and the humidity as low as possible to create good conditions for BestSeal SS152 to penetrate deeply into the concrete with the highest possible dosage.

Application:

Use spray bottles, nozzles, brushes, rollers... to evenly distribute BestSeal SS152 onto the entire surface that needs waterproofing at a rate of 5 ÷ 7 m²/liter. Choose the appropriate method depending on the product structure, application conditions, and available tools. Use a scrub brush (or wire brush) to disperse BestSeal SS152 back and forth several times to create conditions for the material to penetrate deeply into the concrete.

When BestSeal SS152 begins to gel (becomes flexible), spray clean water on the surface in a moderate amount and use a scrubber (or wire brush) to rub back and forth several times to redisperse the microcrystals activated SiO₂ body to re-penetrate deep into the concrete. Repeat this process until you no longer see BestSeal SS152 flocculating on the surface.

Do not apply BestSeal SS152 in rainy conditions without a roof.

Safety:

BestSeal SS152 is an alkaline solution, it can cause skin irritation if it is sensitive skin upon prolonged contact. PPEs must be worn when using the product. When it falls on the skin, eyes, nose, and mouth... wash immediately with clean water several times before going to the nearest medical facility for timely and correct treatment.

Statement of responsibility:

The technical information and manuals in the BESTMIX documents are based on our knowledge and practical experience. The information contained herein is of a general nature only. Before use, it is necessary to conduct tests to check the suitability of products for each specific requirement and purpose. BESTMIX reserves the right to change the physical parameters of the product without prior notice. The user should always refer to the product's latest technical documentation.

PHỤ GIA & HÓA CHẤT XÂY DỰNG BESTMIX® CONSTRUCTION CHEMICALS & ADMIXTURES
 PHỤ GIA BÊ TÔNG, XI MĂNG - HÓA CHẤT CHỐNG THẤM - VỮA RỘT RỐT KHÔNG CỎ NGÓT - NÉN SÀN - KẾT NỐI - TRÁM BỊT - SỬA CHỮA - BẢO VỆ AN THIÊN ★ CEMENT AID - CONCRETE ADMIXTURE - WATERPROOFING - GROUTING - FLOORING - BONDING - SEALING - REPAIRING - PROTECTING - FINISHING