



Lease Life  
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Structures

# SUPERSHIELD

## MULTIGUARD

Self-healing Cementitious Crystalline Waterproofing  
and Protective Coating for Concrete



### PRODUCT DESCRIPTION

SUPERSHIELD MULTIGUARD is a single-component, cementitious crystalline waterproofing and protective coating for concrete that is enhanced with MULTISEAL CRYSTALLINE technology. It combines SHIELD Adaptive Crystals with a hydrophobic molecular barrier to deliver long-lasting protection for both new and existing concrete structures. When MULTIGUARD is mixed with water and applied by brush or spray to a concrete substrate, it forms Adaptive SHIELD crystals in the pores and capillaries and also forms a surface Repellent barrier. The initial reaction that takes place once the SUPERSHIELD MULTIGUARD coating starts drying on the concrete surface is an excellent repelling feature. This takes place when the product reacts with the carbon dioxide in the atmosphere and forms an surface barrier that prevents water from penetrating into the concrete through capillaries by increasing the surface tension of water and other liquids. Deep within the concrete substrate, SUPERSHIELD MULTIGUARD forms SHIELD Adaptive crystals that dynamically respond to environmental changes. This is especially effective for concrete structures exposed to periodic wet and dry cycles, ensuring enhanced performance and durability.

### RECOMMENDED USES

- Basements
- Concrete Water Tanks
- Tunnels and Subway Systems
- Roof Slab
- Sewage and Water Treatment Plants
- Reservoirs
- Sunken Portion
- Foundations



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## **FEATURES AND BENEFITS**

- In-depth waterproofing and protection
- No curing required
- Protects with repellance and multifunctional SHIELD crystallization
- Can be applied to all structurally sound concrete, new or old and also onto concrete with cement plaster
- Provides permanent internal waterproofing and moisture blocking from both positive and negative sources
- High chemical resistance, withstands pH level from 3 to 11 on continuous contact
- Permanent active
- Applied to pressure or non-pressure concrete face
- High chemical resistance
- Self-healing cracks up to 0.5 mm
- Certified for use with potable water
- Can be applied to either positive or negative side of concrete
- No further protection is required after the treatment like protective plastering



## TECHNICAL DATA

### General Characteristics

PROPERTY	VALUE
Color and Appearance	Grey Powder
Bulk Density	1.2 g/cm <sup>3</sup>
pH Value	11 - 13

### Performance Characteristics

TEST NAME	TEST METHOD	PERFORMANCE
Compressive Strength	EN 12190	Class R3 $\geq$ 25 Mpa
Capillary Absorption and permeability of water	EN 13057	$w \leq 0.5 \text{ kg/m}^2\text{h}^{0.5}$
Chloride Ion Content	EN 1015-17	<0.05%
Adhesive bond	EN 1542	10.8 Mpa
Modulus of elasticity	EN 13412	20 Gpa
Thermal compatibility Part 4: Dry thermal cycling ion penetration	EN 13687-4	NPD
Reaction to fire		Class A1
Dangerous substances		Complies with 5.4



## APPLICATION GUIDELINES

### Surface Preparation

Substrates to be applied with SUPERSHIELD MULTIGUARD must be clean and free from laitance, loose particles, curing agents, dirt, oil, grease, asphalt, and paint. The substrate must be thoroughly saturated with water and allowed to dry on a damp surface prior to the application of SUPERSHIELD MULTIGUARD.

Caution: No standing water or excessive water should remain on the substrate that is to be applied with SUPERSHIELD MULTIGUARD.

### Wetting Concrete

SUPERSHIELD MULTIGUARD requires a saturated substrate and a damp surface. Concrete surfaces must be thoroughly saturated with clean water prior to the application so as to aid the proper curing of the treatment and to ensure the growth of the crystalline formation deep within the pores of the concrete. Remove excess surface water before the application. If the concrete surface dries out before application, it must be rewetted.

### Mixing For Slurry Coat

Mix SUPERSHIELD MULTIGUARD powder with clean water to a slurry consistency in the following proportions:

#### Brush Application

Consumption	No of Coats	Water	Powder
1.25–1.5 lb./sq. yd.(0.65–0.8 kg/m <sup>2</sup> )	One Coat	2 Parts	5 Parts
2.0 lb./sq. yd.(1.0 kg/m <sup>2</sup> )	One Coat	1 Part	3 Parts

#### Spray Application

Consumption	Water	Powder
1.25–1.5 lb./sq. yd.(0.65–0.8 kg/m <sup>2</sup> )	3 Parts	5 Parts

Note: Prepare only the amount of SUPERSHIELD MULTIGUARD material that can be applied within 20 minutes.

Do not add water to the mix once it begins to harden.

Protect your hands by wearing rubber gloves during application.

### Applying Multiguard

Apply SUPERSHIELD MULTIGUARD with a semi-stiff nylon bristle brush, push broom (for large horizontal surfaces), or specialized spray equipment. The coating must be uniformly applied and should be just less than 1/16 in. (1.25 mm). When SUPERSHIELD MULTIGUARD is applied as a topcoat in conjunction with Supershield Crystalguard or Ultima, prior curing of the Supershield Crystalguard or Ultima coating for a minimum of 3 days is required. Light pre-watering between coats may be required due to drying. The SUPERSHIELD treatment must not be applied under rainy conditions or when the ambient temperature is below 40°F (4°C). For recommended equipment, contact SUPERSHIELD or your nearest SUPERSHIELD distributor.

### Curing

The freshly applied SUPERSHIELD MULTIGUARD must be protected from direct rain for at least 48 hours after application, and no water curing is required. However, allow the coating to set for a minimum of 18 days before filling the structure with liquid.

## HEALTH AND SAFETY

SUPERSHIELD MULTIGUARD contains chemicals that may cause skin irritation. For personal precaution, protective gloves and goggles are recommended to be worn during the handling of this product. If the product gets in contact with the eyes, flush immediately with clean water and seek medical assistance if symptoms persist.

## STORAGE

When stored in a dry place in unopened, undamaged original packaging, the shelf life is 12 months.



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## **PACKAGING**

Available in 25 kg (55.1 lb) pails and 25 kg (55.1 lb) PE-lined paper bags.

## **WARRANTY**

Supershield warrants that its products will be free from material defects and will comply with the specifications provided in their respective technical data sheets. If any product is proven to be defective, Supershield's liability will be limited to the replacement of the product. Supershield will not be liable for any incidental or consequential damages. No other warranties, express or implied, shall apply, including warranties of merchantability or fitness for a particular purpose. It is the user's responsibility to determine the suitability of the product for their intended use and to assume all risks and liabilities associated with its application. Supershield reserves the right to alter the properties of its products without prior notice.