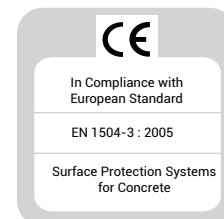


**CRYSTALLIZATION WATERPROOFING AND PROTECTIVE BARRIER SYSTEM**

- In-depth waterproofing and protection
- Permanent active
- Applied to pressure or non-pressure concrete face
- High chemical resistance
- Self-sealing capability

**PRODUCT DESCRIPTION**

SUPERSHIELD MULTIGUARD is a single component dual protection system enhanced with SUPERSHIELD MULTISEAL technology. The grey colour powder when mixed with water for brush consistency and applied on concrete substrate, forms crystals in the pores, capillaries and also forms a surface waterproofing barrier. MULTIGUARD is specially formulated for the top coat application either by itself or in conjunction with SUPERSHIELD CRYSTALGUARD/ ULTIMA in a two coat application, where the combination will result in a high degree of protection and durability.

PROPERTIES

The initial reaction that takes place once the SUPERSHIELD MULTIGUARD coating starts drying on the concrete surface is with an excellent repelling feature. This takes place when the product reacts with the carbon dioxide in the atmosphere and forms an invisible surface barrier that prevents water from penetrating into the concrete through capillaries by increasing the surface tension of water and other liquids.

Deep inside the concrete substrate SUPERSHIELD MULTIGUARD forms hygroscopic crystalline structure by means of a complex chemical reaction involving pressure of osmosis and Brownian movement. These crystals block the capillaries and minor shrinkage cracks in the concrete and prevent any further water ingress (even under high hydrostatic pressure). In addition to waterproofing the structure, SUPERSHIELD MULTIGUARD protects concrete against sea water, waste water and aggressive chemical solutions.

AREAS OF APPLICATION

SUPERSHIELD MULTIGUARD can be applied to all structurally sound concrete, new or old and also on to the concrete with cement plaster. It may be applied to either the pressure or non-pressure concrete face (i.e. with or against water pressure).

RECOMMENDED FOR

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

The information contained herein is based on our long-term experience and the best of our knowledge. We can, however, make no guarantee since for a successful outcome, all circumstances in an individual case must be taken into consideration. Indications of quantities required are only averages which in certain cases might be greater.

**MIXING RATIO**

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

TECHNICAL DATA

Product Code	SCC103	
Colour & Appearance	Grey Powder	
Bulk Density	1.25 Kg/ L	
Setting Time	60 min	
Water Permeability	EN 12390 - 8	Passed
Chemical Resistance	ASTM C-267-77	Can withstand acid and alkaline of range between pH 3-11 constant contact
Freeze Thaw Resistance	ASTM C666 - 97	300 cycles show less length change - 0.09% in untreated and 0.039% in treated
Resistance to Chloride Ion Penetration	ASTM C1202	No increase in the internal chloride content

Proposed use of chemical: Waterproofing and protective barrier system for concrete with or without reinforcement.

Performance characteristics for CE certification according to EN 1504-3:2005, 2+

Test type	Standards	Performance
Compressive Strength	EN 12190	Class R3 \geq 25 MP a
Chloride Ion Content	EN 1015-17	\leq 0.05%
Adhesive Bond	EN 1542	\geq 0.8 Mpa
Modulus of Elasticity	EN 13412	\geq 20 Gpa
Thermal Compatibility - Part 4	EN 13687-4	NPD
Capillary Absorption	EN 13057	\leq 0.5 kg/m ² h ^{0.5}
Reaction to Fire		Class A1
Dangerous Substances		Complies with 5.4

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APPLICATION GUIDELINES

SURFACE PREPARATION

Substrate to be applied with SUPERSHIELD MULTIGUARD must be clean and free from laitance, loose particles, curing agents, dirt, oil, grease, asphalt and paint. Substrate must be thoroughly saturated with water and allow it dry to 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 concrete surface dries out before application, it must be re-wetted.

MIXING FOR SLURRY COAT

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

For Brush Application

0.65-0.8 kg/m² (1.25 -1.5 lb/sq. yd.)

5 parts powder to 2 parts water

1.0 kg/m² (2.0 lb/sq. yd.)

3parts powder to 1 part water

For Spray Application

0.65 -0.8 kg/m² (1.25 -1.5 lb/sq. yd.)

5 parts powder to 3 parts water (ratio may vary with equipment type)

Do not mix more Supershield Multiguard material than can be applied in 20 minutes. Do not add water once mix starts to harden. Protect hands with rubber gloves.

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 top coat in conjunction with CRYSTALGUARD/ ULTIMA prior curing of the CRYSTALGUARD/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 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 to coating to set for a minimum of 18 days before filling the structure with liquid.

HEALTH AND SAFETY

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

STORAGE

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

PACKAGING

Available in 25 kg (55.1 lb) Pails & 25 kg (55.1 lb) PE-lined paper bags.