

**CONCRETE CRYSTALLINE WATERPROOFING AND VACCINATION SYSTEM**

- Waterproofing and moisture blocking from the positive and negative side of the concrete
- Provides repellence and dual crystallization
- Seals voids, cracks and capillaries up to 1/16th inch (1.5 mm)
- Easy to apply, just spray with low pressure sprayer
- Permanent and active
- High Resistance against chloride ion penetration
- No film formation or appearance change

**PRODUCT DESCRIPTION**

SUPERSHIELD MULTISEAL is a unique water based, environment friendly waterproofing and vaccination treatment for concrete and all cement-based materials. In a single application it permanently waterproofs and protects concrete against water, moisture, aggressive chemicals and temperature associated problems such as concrete leakage, thermal cracking, and damage caused by repeated freeze and thaw cycles, chloride ion penetration, as well as Alkali Silica Reactions (ASR).

PROPERTIES

The protection properties of SUPERSHIELD MULTISEAL takes place in three different mechanisms that combines water repelling technology with impregnation (Hydrated crystals) and DPC crystallization (Hygroscopic crystals). SUPERSHIELD MULTISEAL once sprayed on to the concrete will seep into the pores and capillaries of the concrete taking advantage of its low viscosity, where it chemically reacts and results in an outstanding protection system by forming a water repelling substrate with two distinctive crystal formation (Hydrated and Hygroscopic) deep inside the concrete by filling the pores, capillaries and voids from all the directions. SUPERSHIELD MULTISEAL reactivates at any later stage when it comes in contact with moisture; the unique reactivation is the key in providing permanent protection to concrete.

AREAS OF APPLICATION

MULTISEAL can be used as a treatment and protection against all water and moisture associated problems for all concrete and cementitious surfaces. It is effective on both new and refurbished concrete structures. In fact, all concrete can be effectively treated with MULTISEAL.

RECOMMENDED FOR

- Airport runways and parking areas
- Bridges and highway structures
- Flyovers
- Tunnels
- Multi storey car park decks and structures
- Sea ports
- Marine structures
- Buildings
- Walkways
- Effluent treatment plants



TECHNICAL DATA

Product Code	SCP102
Colour and Appearance	Transparent - Liquid
Density	1.06 Kg/litre
Water Permeability - DIN 1048	Treated samples showed 113% better performance than untreated
Chloride Ion Penetration - ASTM C1202-3	Treated samples showed 112% better performance than untreated

Performance characteristics for CE certification according to EN 1504-2:2004, 2+

Test type	Standards	Performance
Depth of Penetration	EN 14630	Class II > 10mm
Water Absorption & Resistance to Alkali	EN 13580	Absorption ratio < 7.5 % compared with untreated specimen < 10 % after immersion in alkali solution
Drying Rate Co-efficient	EN 13579	Class I > 30%
Loss of Mass after Freeze thaw test	EN 13581	Loss of mass 20 cycles later than in non-impregnated samples
Dangerous substances		Complies with EN 1504-2, 5, 3



APPLICATION GUIDELINES

SURFACE PREPARATION

SUPERSHIELD MULTISEAL can be applied on a damp surface but the surface should be predominantly dry as absorption of the material from the surface would be better on a dry substrate. Concrete surfaces must be clean and sound prior to the application of SUPERSHIELD MULTISEAL. Proper cleaning will open the surface pores and capillaries in order to enhance the penetration process. The use of compressed air or brushing is recommended to remove all loose particles and dust from the surface. The use of special concrete cleaning agents may be necessary for areas contaminated with oil.

MIXING

Agitate SUPERSHIELD MULTISEAL in a drum or pail to assure proper dispersion of solids. SUPERSHIELD MULTISEAL is supplied in ready to apply form and should not be diluted by any means.

APPLICATION

SUPERSHIELD MULTISEAL should be applied in a single coat only by means of spraying or brushing. For large-scale applications, it is recommended to spray the product using a heavy-duty commercial sprayer. Do not apply SUPERSHIELD MULTISEAL on exterior substrates, if precipitation is forecasted within two hours of coating completion. If precipitation occurs during application, discontinue application process immediately however areas already treated area does not require any protection or re-application.

COVERAGE

It is recommended to apply SUPERSHIELD MULTISEAL at a dosage rate of 4.9 m²/ Lit (200 ft²/gal) in one coat. The coatings should be applied evenly and the substrate should be covered completely with the coating.

LIMITATIONS

SUPERSHIELD MULTISEAL must not be applied if the temperature falls below 5°C or if raining. As with all impregnation materials and processes, the surface to be treated must be free from any contamination that might reduce uptake of the impregnate. Concrete substrate that is to be treated with SUPERSHIELD MULTISEAL should be a minimum of 7 days old.

APPEARANCE AFTER APPLICATION

The concrete treated with SUPERSHIELD MULTISEAL may turn dark for an initial period but will restore to its original color once dried out completely. Excess spraying of material may form white powder on the surface after drying and if necessary this can be washed of and special measures are not required in respect to the disposal of the wash water as the product is non-toxic.

CURING

The concrete surface treated with SUPERSHIELD MULTISEAL should be allowed to cure @ 23.9° C (75° F) for a period of one hour before opened for traffic.

MARKING AND COATINGS

The SUPERSHIELD MULTISEAL treated concrete substrate can be marked or coated after a period of 48 hours @ 23.9° C (75° F).

HEALTH AND SAFETY

SUPERSHIELD MULTISEAL 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.



APPLICATION GUIDELINES

STORAGE

SUPERSHIELD MULTISEAL must be stored under room temperature. Cold temperatures may cause the product to crystallize. When stored in a dry place in unopened, undamaged original packaging, shelf life is 12 months. Do not allow product to freeze. Repeated freezing and thawing might cause damage for the product.

PACKAGING

Available in 25 Litre carboys and 200 Litre Drums.