

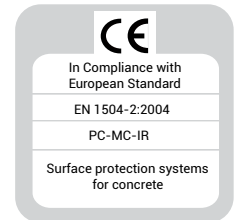


LIQUID CRYSTALLINE COATING

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

ADVANTAGES OVER CEMENTITIOUS CRYSTALLINE COATINGS

- Water based and environmental friendly
- Single coat is sufficient in most applications
- Easy and quick spray application
- Eliminates bonding problems
- Curing is optional
- Eliminates waiting time in Repair works
- Reduces labour time and cost by 90%
- Prevents dust and associated problems
- No appearance change

**PRODUCT DESCRIPTION**

SUPERSHIELD CRYSTALSPRAY is a single compound water based hygroscopic crystalline waterproofing coating used by itself or in combination with Crystalguard Ultima for a high degree of chemical resistance. CRYSTALSPRAY is applied using simple low pressure sprayers. CRYSTALSPRAY can be used as a hygroscopic crystalline enhancer in SUPERSHIELD MULTISEAL H System in combination with MULTISEAL, for substrates where extra degree of resistance against high hydrostatic pressure is required. CRYSTALSPRAY can also be top coated with Clearseal to provide repellence barrier.

PROPERTIES

When SUPERSHIELD CRYSTALSPRAY is applied to a concrete surface, the active chemicals combine with the free lime and moisture present in the capillary tract, to form insoluble crystalline complexes. These crystals block the capillaries and minor shrinkage cracks in the concrete to prevent any further water ingress (even under pressure). However, the CRYSTALSPRAY will still allow the passage of water vapor through the structure (i.e. the concrete will still be able to “breathe“). In addition to waterproofing the structure, SUPERSHIELD CRYSTALSPRAY protects concrete against sea water, wastewater, aggressive ground water and certain chemical solutions. SUPERSHIELD CRYSTALSPRAY is approved for use in contact with potable water, and is therefore suitable for the treatment of water storage tanks, reservoirs, water towers, etc.

AREAS OF APPLICATION

SUPERSHIELD CRYSTALSPRAY can be applied to all structurally sound concrete, new or old. It may be applied to either the pressure or non-pressure concrete face (i.e. with or against water pressure). The minimum concrete requirement for effective waterproofing is a concrete of high strength grade with minimum 3 inches thickness.

**RECOMMENDED FOR**

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

TECHNICAL DATA

Product Code	SCP102
Colour and Appearance	Transparent - Liquid
Density	1.14 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 tests	EN 13581	Loss of mass 20 cycles later than in non-impregnated samples
Dangerous substances		Complies with EN 1504-2, 5, 3

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.



APPLICATION GUIDELINES

SURFACE PREPARATION

SUPERSHIELD CRYSTALSPRAY 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 CRYSTALSPRAY.

Flushing the concrete substrate with water is recommended in areas where there is no presence of negative side moisture and to concrete that are above the ground level. Such areas are to be saturated with water and the standing excess water has to be removed 24 hours prior to the SUPERSHIELD CRYSTALSPRAY application. This process would facilitate the hygroscopic crystal growth deep inside the concrete.

MIXING

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

APPLICATION

SUPERSHIELD CRYSTALSPRAY 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 CRYSTALSPRAY 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 does not require any protection or re-application. After the first coat of SUPERSHIELD CRYSTALSPRAY the treated surface should be allowed to cure for a period of 24 hours before it could take the top coat, if specified but can be allowed for traffic in four hour @ 23.9° C (75° F).

SUPERSHIELD MULTISEAL H SYSTEM is a combination of single coat of CRYSTALSPRAY with a top coat of SUPERSHIELD MULTISEAL. Intervals between CRYSTALSPRAY and MULTISEAL should be minimum of 18 hours i.e the surface should be predominantly dry condition for MULTISEAL treatment.

COVERAGE

It is recommended to apply CRYSTALSPRAY 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 CRYSTALSPRAY 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 CRYSTALSPRAY should be a minimum of 7 days old.

APPEARANCE AFTER APPLICATION

The concrete treated with SUPERSHIELD CRYSTALSPRAY 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

SUPERSHIELD CRYSTALSPRAY should be allowed to cure @ 23.9° C (75° F) for a period of 4 hours before opened for traffic and seven days before it is subjected to water pressure.



APPLICATION GUIDELINES

HEALTH AND SAFETY

SUPERSHIELD CRYSTALSPRAY 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

SUPERSHIELD CRYSTALSPRAY 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 ltr carbouys, 200 ltr drums and 1000 ltr IBC.