

**APPLICATION GUIDELINES****SURFACE PREPARATION**

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

**STRUCTURAL REPAIR**

Rout out cracks, faulty construction joints and other structural defects to a depth of 1.5 inches (37 mm) and a width of one inch (25 mm). Apply a brush coat of SUPERSHIELD CRYSTALGUARD and allow it to dry for 10 minutes. Fill cavity by tightly compressing SUPERSHIELD CRYSTALGROUT in putty consistency into the groove with pneumatic packing tool or with hammer and wood block. SUPERSHIELD CRYSTALGROUT is prepared by mixing four parts SUPERSHIELD CRYSTALGROUT powder with one part water to a thick putty consistency.

**Note:**

1) Against a direct flow of water (leakage) or where there is excess moisture due to seepage, use SUPERSHIELD CRYSTALPATCH then SUPERSHIELD CRYSTALGROUT followed by a brush coat of SUPERSHIELD CRYSTALGUARD. (Refer to SUPERSHIELD Specifications and Applications Manual for full details.)

2) For expansion joints or chronic moving cracks, flexible materials such as expansion joint sealants should be used.

**WETTING CONCRETE**

SUPERSHIELD CRYSTALGUARD ULTIMA 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 CRYSTALGUARD ULTIMA powder with clean water to a slurry consistency in the following proportions:

**For Brush Application**

1.25 - 1.5 lb./sq. yd. (0.65 - 0.8 kg/m<sup>2</sup>)  
5 parts powder to 2 parts water  
2.0 lb./sq. yd. (1.0 kg/m<sup>2</sup>)  
3 parts powder to 1 part water

**For Spray Application**

1.25 - 1.5 lb./sq. yd. (0.65 - 0.8 kg/m<sup>2</sup>)  
5 parts powder to 3 parts water (ratio may vary with equipment type)

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

**APPLYING SUPERSHIELD**

Apply SUPERSHIELD CRYSTALGUARD ULTIMA 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 under 1/16 in. (1.25 mm). When a second coat (SUPERSHIELD CRYSTALGUARD or

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SUPERSHIELD CRYSTALGUARD ULTIMA) is required, it should be applied after the first coat has reached an initial set but while it is still “green” (less than 48 hours). 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**

A misty fog spray of clean water must be used for curing as soon as the SUPERSHIELD CRYSTALGUARD ULTIMA treatment has set to the point where it will not be damaged by a fine spray of water. On normal conditions curing can be started after 24 hours of application. Cure the treated surface for three days (twice a day) and allow to set for minimum of 18 days before filling the structure with liquid. Frequent curing is required for hot climates. The freshly applied SUPERSHIELD CRYSTALGUARD ULTIMA must be protected from direct rain for at least 48 hours after application.

**HEALTH AND SAFETY**

SUPERSHIELD CRYSTALGUARD ULTIMA 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 and 25 kg (55.1 lb) PE-lined paper bags.