



Lease Life  
to Man-Made  
Structures

# SUPERSHIELD

## CRYSTALPATCH

Cementitious Crystalline Quick Setting Mortar to Plug  
Active Leakages



### PRODUCT DESCRIPTION

SUPERSHIELD CRYSTALPATCH is a fast-setting, non-shrink cementitious compound with a high bond strength. It is specifically designed for the efficient patching and repair of concrete structures. It is enhanced with SUPERSHIELD Crystalline Technology. CRYSTALPATCH is mixed with water to form a mortar consistency that is used to stop flowing water in seconds and to effectively seal cracks, joints, and other concrete defects. It is used in conjunction with Supershield Crystalguard, Supershield Crystalguard Ultima, Supershield Crystalmix, and other coatings and patching mortars.

### RECOMMENDED USES

- Stopping an active flow of water through cracks
- Repair of honeycombs
- Make coves, fill tie holes, cold joints
- Repair of leaking construction joints
- Sealing around pipe penetrations

### FEATURES AND BENEFITS

- Stops active flow of leakages quickly in seconds
- Enhanced with Supershield crystalline technology for self-healing of cracks and other defects
- Excellent structural strength
- Non-shrink with high bond strength
- Single component (simply add water)
- Non toxic and approved for potable water
- Non-metallic (won't rust or deteriorate)



## TECHNICAL DATA

### General Characteristics

PROPERTY	VALUE
Color and Appearance	Grey Powder
Bulk Density	~ 1.25 g/cm <sup>3</sup>
Setting Time	Initial set - 3 minutes ; Final set - 9 minutes

### Performance Characteristics

TEST NAME	TEST METHOD	PERFORMANCE
Compressive Strength	EN 12190	Class R3
Chloride ion Content	EN 1015-17	≤ 0.05%
Adhesive Bond	EN 1542	≥ 0.8 MPa
Modulus of Elasticity	EN 13412	Class R1
Thermal Compatibility Part 4: Dry Thermal Cycling	EN 13687- 4	Class R1



## APPLICATION GUIDELINES

### Plugging Instructions

**1) Preparation:** Rout out the crack or hole by chiseling or chipping to a minimum depth of 25 mm, forming a square or dovetail-shaped space. Flush away all loose materials and dirt from the cavity using water and a stiff brush.

**2) Mixing:** Mix 1 part water with 3.5 parts SUPERSHIELD CRYSTALPATCH by volume until it reaches a stiff putty consistency. Prepare only the amount of material that can be used within 3 minutes.

**3) Plugging :** Form the plug with a gloved hand. Place the plug (once the mix starts generating heat) into the cavity, pressing firmly until the plug is hard. When sealing cracks, begin at the highest point and work down.

Note: Where there is a high volume of water flow due to extreme hydrostatic pressure, a bleeder hose may be necessary to relieve the water pressure while sealing the repair area. Use the following procedures:

- a) With a concrete chisel and hammer, cut open a cavity at the point of greatest water flow.
- b) Place a stiff section of hose or pipe into the cavity and secure it in place with SUPERSHIELD CRYSTALPATCH to force water through the hose. This relieves the pressure so that the area can be patched. Allow a minimum of 10 hours for hardening.
- c) The bleeder hose has to be removed and patched only after injection grouting with Supershield Inject (refer to the SUPERSHIELD INJECT Datasheet).

### Patching Instructions

**1) Surface Preparation:** Rout out faulty concrete until a sound substrate is reached. Remove all loose materials from the area and saturate it with clean water. Allow water to be absorbed into the concrete, then remove excess water.

**2) Mixing:** For quick repairs to concrete or masonry, add water to SUPERSHIELD CRYSTALPATCH (1.5

parts water to 4 parts powder by volume). Mix to a workable mortar consistency, and trowel as required. For large repairs, mix 1 part SUPERSHIELD CRYSTALPATCH with 2 parts mason sand or small aggregates of the required size.

### Curing

A misty fog spray of clean water should be used to cure the SUPERSHIELD CRYSTALPATCH treatment 18 hours after application. Continue curing the treated surface for three days, spraying it twice a day. In hot climates, more frequent curing may be necessary. Protect the freshly applied SUPERSHIELD CRYSTALPATCH from direct rain for at least 12 hours after application.

## HEALTH AND SAFETY

SUPERSHIELD CRYSTALPATCH 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 with unopened and undamaged original packaging, SUPERSHIELD CRYSTALPATCH has a shelf life of 12 months.

## PACKAGING

SUPERSHIELD CRYSTALPATCH is available in 25 kg (55.1 lb) pails and 25 kg (55.1 lb) PE-lined paper bags.



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## 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.