



PRODUCT DATA SHEET

PRODUCT CODE:C281

Krystal Concrete Waterproofing System

Description

C281 Krystal Concrete Waterproofing is a 2 coat system that is applied to the surface of existing concrete structures. In the presence of moisture, the C281 will stimulate the growth of crystals deep into the concrete mass. These crystals will permanently block and prevent the passage of water through capillary pores, micro-cracks and joints. The concrete itself becomes the waterproof layer and the surface treatment is not required to remain intact for the system to be effective. As a result, the C281 system is extremely durable and will last the lifetime of the concrete.

Principal uses

- Concrete foundations and walls
- Parking structures
- Swimming pools and water features
- Water towers, reservoirs and storage tanks
- Water treatment reservoirs

Advantages

- Stops water movement through concrete
- Provides a permanent treatment
- Protects reinforcing steel against corrosion
- Waterproofing increases with time
- Reaches well below the surface and is not affected by surface wear or abrasion
- Treated concrete withstands significant hydrostatic pressure
- Treatment may be applied to positive or negative (inside) surface of concrete
- Treatment may be applied to old or new concrete
- Self-seals hairline cracks up to 0.5 mm

Surface preparation

The concrete surface must have an "open pore" surface to allow penetration of C281. In addition, concrete surfaces must be free of all contaminants and be pre-soaked with clean water to achieve a saturated surface-dry (SSD) condition. See Method statement for more details.

Mixing instructions

Mix Krystal 1 to a slurry consistency (5 parts powder to 2 parts clean water). With a concrete brush, use an aggressive circular motion to coat the concrete with the Krystal 1 and ensure complete coverage. The second coat can be applied as soon as the Krystal 1 has set hard (usually after about 4 hours depending on weather conditions).

Performance data

C281 Krystal 1 (first coat)

Appearance	Powder
Colour	Grey
Bulk density (g/cc)	1.25
PH (mixed with water)	13
Working time 20°C & 50%RH	60 minutes
Hardening time	5hours
Hydrostatic head resistance	140m
Typical rate of penetration	2mm per week

C281 Krystal 2 (second coat)

Appearance	Powder
Colour	Grey
Bulk density (g/cc)	1.35
PH (mixed with water)	13
Working time 20°C & 50%RH	60 minutes
Hardening time	4hours

Limitations

Application should not be made when the surface temperature is below 5°C. Krystal 1st & 2nd coat is not a decorative coating.

Yield

Used for surface slurry applications, the coverage rate per coat is 0.8 kg/m²

Packaging

C281 1st and 2nd coat is available in 5kg buckets and 25kg bags

Safety & handling

Wear dust masks when mixing. Use gloves, eye protection at all times. Should the product come into contact with eyes, wash immediately and seek medical advice

Shelf Life & Storage

12 months when stored in a cool dry place, failure to comply with these recommendations will result in a reduction in shelf life

Curing

Krystal growth and migration only occurs in the presence of moisture. For this reason Krystal 1st & 2nd coat must be "wet (moist) cured" for at least 3 days (continued curing for several days or even weeks will be beneficial in most cases). During the curing period, the treated area must be protected from frost, rain and traffic at least 24 hours. Heavy traffic must be avoided during the curing period. Wait at least 7 days before filling treated tanks and reservoirs.

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