

# Pen Shield FC100

High performance silane based moisture and Chloride ion inhibitor

## DESCRIPTION

Pen Shield FC100 is a high performance, single component SILANE based, invisible and breathable impregnating sealer that provides maximum protection to insitu and off form concrete structures, Pen Shield FC100 is designed to provide long term protection against moisture and waterborne chloride ion ingress, making the surfaces easier to clean and maintain.

Pen Shield FC100 repels water and water borne contaminants while keeping the original look of the surface, greatly reducing water uptake to minimise moss growth, efflorescence and chloride ion ingress by 98%. Once cured Pen Shield FC100 won't breakdown when coming in contact with moisture, protecting the surface from weathering, Pen Shield FC100 is able to bridge hairline cracks up to 0.30mm.

Pen Shield FC100 provides long lasting protection while not altering the look from the original product. A test sample should always be prepared and allowed to cure prior to proceeding.

## PRODUCT FEATURES & BENEFITS

- Excellent penetration
- Used for internal and external application
- Minimises efflorescence
- Repels moisture and reduces the effect of chloride ion corrosion in steel reinforced concretes
- UV stable
- Reduces mould growth
- Allows trapped moisture to escape
- Doesn't alter the texture or look of the original surface
- Bonds chemically to the cement based material within the concrete and does not wash or leach out during water vapour release
- Excellent for chloride ion salt resistance

## TYPICAL APPLICATIONS

Pen Shield FC100 can be used in a variety of applications including external building facades, bridges, wharfs, motorway sound barriers or any sound steel reinforced concrete structure.

## APPLICATION RATES

Total application rate are typically between 3 - 5m<sup>2</sup> per litre depending on the substrate.  
(Contact manufacturer for more details)

## PACK SIZES

Pen Shield FC40 is available in 200ltr, 20ltr.

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## PERFORMANCE PROPERTIES

COLOUR	CLEAR
FINISH	INVISIBLE PENETRATING FILM
DENSITY	0.88KG/CM <sup>3</sup>
VOLUME SOLIDS	>98%
RECOAT TIME	Minimum 30-45 MINUTES AT 25°C,50%RH
pH	BETWEEN 7 - 8
FULL CURE	24 HOURS @ 20°C

## SUREFACE PREPARATION

The concrete substrate must be cured in accordance with relevant standards; the concrete must be a cured for a minimum of 28 days prior to the application of Pen Shield FC100.

All concrete must be clean, dry and free of all contaminants prior to the application of Pen Shield FC100; this includes curing compounds and release agents.

## APPLICATION OF PRODUCT

- Always test the product on the substrate and allow to cure; to ensure the desired result will be achieved.
- Apply product straight from the container (no dilution required).
- Surface must be dry and free of all contaminants prior to application of sealer.
- Apply the product to the substrate using a low-pressure sprayer, ensuring the entire surface is wetted; ensure no product comes in contact with surrounding areas.
- It is important to remove any sealer that has not been absorbed after 30 – 45 minutes using a dry absorbent white cloth.
- When the surface becomes touch dry, after a minimum of 45-60 minutes apply a second coat of Pen Shield FC100 as described in the steps above.
- Apply the second coat at right angles to the first.
- Clean all tools with xylene.

## PRECAUTIONS

- Do not apply to damp surfaces, apply.
- Apply Pen Shield FC100 when surface temperature is between 10-30°.
- Protect surrounding areas from overspray, buildings, plants, drains etc.
- Wear suitable protective wear, solvent resistant gloves, protective clothing, safety goggles and organic vapour respirator.
- Protect sealed surface from moisture including rain for a minimum of 6 hours.
- Avoid applying Pen-Shield FC100 in windy conditions.
- Do not apply Pen Shield FC100 over previously coated surfaces.

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## STORAGE

- Keep Pen Shield FC100 stored in a dry area, away from direct sunlight & frost.
- Store between 10°C & 30°C.
- Pen Shield FC100 has a shelf life of 12 months in an unopened container.
- Ensure partly used drums are correctly sealed.

## FIRE

Pen Shield FC100 is flammable.

## SAFETY PRECAUTIONS

- Wear appropriate protective equipment including clothing, gloves, appropriate respiratory mask and goggles.
- If poisoning occurs, contact doctor or Poisons Information Centre.
- If contact with skin occurs, remove contaminated clothing and thoroughly wash skin.
- If swallowed do not induce vomiting, give a glass of water.
- If in eyes, hold eyes open and flood with water for at least 15 minutes then see doctor immediately.
- For further information refer to the relevant Material Safety Data Sheet.

## IMPORTANT INFORMATION

The information and recommendations relating to Pen Shield FC100 are given based on current knowledge and experience. Due to variances in material substrates and site conditions no warranties implied by law or, fit to purpose of the product can be implied. We accept no responsibility for loss or injury due to the incorrect handling or improper use of the product, limiting the cost of our liability to the replacement product cost only. Always refer to current Product Technical Data Sheets.

## CONPELL

Head Office: PO Box 4252

Ph: 1300 966 118

Brisbane Sales: 0450 040 848

Loganholme DC, Qld 4129

Fax: 1300 922 001

National Sales: 0433 400 220

Email: [info@conpell.com](mailto:info@conpell.com) Web: [www.conpell.com](http://www.conpell.com)