



**PERFORMANCE SPECIFICATION FOR
EVERCRETE'S DEEP PENETRATING SEALER (DPS)
WATERPROOFING WORKS, PRESERVING AND HARDENING
OF ALL CONCRETE STRUCTURES**

1. PREAMBLE

The following specification is designed for Evercrete Deep Penetrating Sealer (DPS) material performance on normal, sound construction grade concrete be it a new or old structure, wet or dry.

However for concrete found to have abnormal conditions such as excessive carbonation, alkali aggregate reaction, very high permeability or other significant factors affecting the concrete, this specification may not apply and a new specification may need to be tailored to suit on a specific case by case basis. The supplier of the material will be able to advise further.

2. GENERAL

Treatment shall be carried out to the surfaces described in the contract in accordance with the manufacturer's instructions. All works to be in accordance with the relevant Occupational Health and Safety requirements. No works shall be carried out on the site without the Engineer or his representative in attendance, unless agreed.

3. MATERIAL STORAGE

- 3.1 Materials shall be stored in an enclosed cool dry area, protected from direct sunlight.
- 3.2 The material shall remain in its original sealed containers until time of use.
- 3.3 The contractor shall provide the Engineer, upon delivery, proof that the material is genuine Evercrete Deep Penetrating Sealer. No material shall be used on site until this information has been provided and accepted by the Engineer.
- 3.4 The material shall be used as supplied and not diluted.
- 3.5 The contractor shall deliver to site sufficient material to carry out the work in sealed containers bearing a label, which shall list the manufacturer's name, trade name, application rate and precautionary methods required.

4. SPRAY EQUIPMENT

- 4.1 By brush, roller or spray in accordance with the manufacturer's instructions.
- 4.2 No water shall be permitted to enter any part of the system.
- 4.3 Low pressure sprayer (max 20-30 psi).





5. SURFACE PREPARATION

- 5.1 All surfaces to be treated shall be cleaned of mortar, concrete, dirt and oil; nail holes and voids pointed and concrete rubbed. No surface shall be treated that is not clean. Cleaning works to be carried out by others.
- 5.2 Cracks larger than 0.3mm and voids, holes etc shall be filled in with a compatible cementitious repair material.
- 5.3 Drilling of holes by other trades shall be carried out prior to the application of Evercrete Deep Penetrating Sealer (DPS).
- 5.4 If such drilling of holes is carried out after the application of DPS, Evercrete will sell DPS material to the Main Contractor, in order to re-spray those areas.
- 5.5 All re-spraying of holes shall be treated in accordance with the manufacturer's instruction see item 9 below.

6. PROTECTION

All surfaces that are not to be treated shall be protected from spillage, dripping, or splattering of the waterproofing material. Immediately wipe off the material if it is sprayed onto glass or aluminum.

7. MATERIAL

- 7.1 Waterproofing material shall be clear, colorless, odorless, nonflammable and nontoxic, tasteless.

When sprayed onto the hardened concrete it should penetrate the surface to become an integral part of the concrete by chemically reacting with the calcium hydroxide (lime and alkali) from the cement to form a non-soluble seal within the pores and capillaries of the concrete, permanently sealing it against ingress of moisture yet allowing the concrete to breathe.

There should be no change to the surface characteristics after the application of the Deep Penetrating Sealer.

- 7.2 The material shall not be diluted by solvent or any other fluid.

- 7.3 The material shall possess the following properties:

Water based:	yes
Specific gravity:	1.01 – 1.11
PH:	10.00 – 12.00
Flash point:	non-flammable
Non-toxic:	yes
Chemical identity:	proprietary mixture, containing silicates, bonding catalysts and inerts

- 7.4 The treatment system shall meet the following performance requirements:

1. Water Absorption: Drop in water height 0 – 10 mm (AASHTO Designation TP50-95)
2. Concrete Ability to resist Chloride Ion Penetration: Less than 2000 coulombs (ASTM C1202-91)
3. Crack Sealing Capabilities till to 0.5mm (Modified AASHTO T259)
4. Resistance to De-icing Chemicals, Salt and Moisture Contamination during Freeze/Thaw Conditions: Treated Concrete shall pass ASTM C672
5. Water permeability is not more than 0.093ml/m²/s in accordance with BS1881. Pt5: 1970 Initial Surface Absorption Test (ISAT)





8. TRAINING AND SITE SUPERVISION

In all cases where DPS shall be applied by a contractor, who is not an approved applicator, Evercrete shall offer to train the contractor's site staff and labourers if required to apply the material in accordance with the requirements. Training will include cleaning of the area, equipment usage and spray methods.

9. APPLICATION

9.1 Records

The contractor shall maintain a record of the quantity of material used and the areas treated for each application to verify that the minimum required coverage rate has been achieved. The format of such record shall be agreed with the Engineer and kept up to date and available for the Engineer's inspection throughout the course of the work.

9.2 Evercrete Deep Penetrating Sealer Application

1. Work sequence to be agreed by the Engineer.
2. Shake or stir Evercrete DPS prior to use.
3. Ensure concrete surface is clean and free from oil and grease.
4. Pre wet the concrete.
5. Apply using a low-pressure garden-type sprayer, bush, roller or mop.
 - a. Apply liberally and saturate all areas.
 - b. Vertical walls should be applied from the bottom up to ensure uniformity of application.
 - c. On horizontal surfaces the material should be applied so that the surface has a mirror wet look for at least 5 seconds after application. It should not be excessively applied so as to cause ponding.
 - d. On soffit areas the material shall be applied by continuous spray/ roller/ brush technique. The treated surfaces shall have a "mirror wet look" for at least 5 seconds.
6. Average coverage is about 15m² per US gallon for two coats. The coverage rate depends on the porosity of the concrete and varies from project to project. Under normal conditions, for general concrete waterproofing, 2 coats are required. Depending on the concrete porosity, additional coats may sometimes be required.
7. Under normal ambient conditions, it is recommended that the second coat and any subsequent coats be applied at least 24 hours after the first application.
8. Holes drilled after the application of the second coat of Evercrete DPS, should be re-treated with another two coats of Evercrete DPS in accordance with items 5 above
9. Where it is desired to paint the surface, the paint should be applied at least 7 days after completion of Deep Penetrating Sealer application, after first ensuring the surface is dry.

10. WARRANTY

Evercrete Deep Penetrating Sealer is guaranteed to give the results as represented when used as directed. The manufacturers liability is limited to supplying sufficient material for a re-application.

The product performance is related to the quality of workmanship in the application of the material. The contractor may at his discretion issue a performance warranty against moisture penetration on all waterproofed areas.

