



Method Statement

Ref. #: DCP00/08-0009-A-2021



Setseal B

[Elastomeric acrylic cement modified waterproof coating]



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Section A : General Comments

General Notes:

The information below is a detailed overview for the application of DCP's **Setseal B** waterproofing and protection system and should be read in conjunction with the relevant technical data sheet prior to application. All DCP Products should be applied by experienced specialist contractors.

All the points below assume correct preparation of the relevant surface.

High Temperature Working:

It is suggested that, for temperatures above 35°C, the following guidelines are adopted as good working practice:

- i. Unmixed materials and equipment should be stored in a cool shaded area and away from direct sunlight.
- ii. Avoid application during peak temperature of the day.
- iii. Plan for enough materials, tools and labor to ensure continuous applicator process.

Low temperature working:

It is suggested that, for temperatures below 10°C, the following guidelines are adopted as good working practice:

- i. Unmixed materials should be stored at room temperature.
- ii. Cold temperatures will affect the properties of the material.
- iii. Avoid applying the water proof coating if the temperature is around 5°C and falling.
- iv. Do not apply under rain or snow, and avoid dew points conditions during application.

Tools and Equipment:

It is suggested that the following list of equipment are adopted as a minimum requirement

Personal protection

- : Protective overalls
- : Goggles or a face mask
- : Good quality gloves
- : Safety shoes
- : Safety helmet



Equipment

- : Low speed drill fitted with suitable paddle (Fig.1)
- : Empty bucket (25 litre) (Fig.2)
- : Brush (Fig.3)
- : Trowel (Fig.4)
- : Hopper type spray machine (Fig.5)



Fig.1: Low speed drill fitted with suitable paddle

Fig.2: Empty bucket

Fig.3: Brush

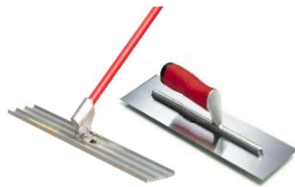


Fig.4: Trowel

Fig.5: Hopper type spray machine

Section B : Application

1.0 Substrate Preparation

- 1.1 New concrete or cementitious substrates should be at least 28 days old.
- 1.2 The substrate (new or existing) should be clean, sound, smooth and free from contamination such as mortar and paint splashes, curing compounds, oil and grease.
- 1.3 Excess laitance deposits, organic growth or any other loose materials are best removed by high pressure water jetting, or light grit blasting.



- 1.4 Any surface imperfections, honey combing, damaged or deteriorated concrete should be repaired with a suitable cementitious repair mortar. Consult the DCP's Technical Department for specific recommendations.



- 1.5 Repair work should not produce a dusty and flaky finish.
- 1.6 It is recommended to create fillet on corners using sand-cement or repair mortar.
- 1.7 Avoid contact to other substrates that may be affected from spillage or overcoating by applying masking tape.

*Note: It is recommended to test the adhesion between the substrates and **Setseal B** on small area onsite prior to proceeding the works in order to ensure that the substrate is well prepared and compatible with the product.*

2.0 Priming

- 2.1 No special primer is required, but substrate should be presoaked with clean water to a saturated surface dry (SSD) condition prior the application of **Setseal B**.



3.0 Mixing

- 3.1 A mechanically powered mixer or drill fitted with suitable paddle type should be used to ensure proper mixing.

- 3.2 Locate the mixer or the mixing container as close as possible to the area of application in order to minimize the transporting time.

- 3.3 Place the liquid component of **Setseal B** into a clean container, add the dry powder slowly to the liquid while mixing continuously with low speed mixer/drill (400 – 600 rpm).

- 3.4 Mixing should be continued for 3 minutes until uniform consistency and a lump free mixture is obtained.

- 3.5 Allow the mix to rest for 2 - 3 minutes, then remix for an additional 1 minute without adding any more liquid.

- 3.6 Mixed **Setseal B** should be applied to the prepared, dampened surface within its pot life (approximately 45 minutes @ 25°C from the start of mixing), pot life varies after mixing depending on the ambient and material temperature.



Notes:

- *Do not mix part of packs under any condition, as this will change the mixing ratio between the powder and the liquid polymer which will affect the material performance.*
- *Slow speed mixer should be only used.*
- *While mixing, ensure that the mixing blade is kept below the surface of the mix to prevent air entrapment.*
- *Do not mix more than the amount of material to be placed within its working time.*
- *The liquid part of **Setseal B** should only be used for mixing.*
- *Do not use material from damaged bags.*
- *Do not use additives of any kind.*

4.0 Application

- 4.1 **Setseal B** can be applied by brush, trowel, or spray machines. The mixed material should be brushed well into the surface.



- 4.2 Care must be taken not to spread the materials too thin.
- 4.3 The first coat should be applied at a wet film thickness of 1 mm. When the material begins to drag, do not add any water, but dampen the surface again.
- 4.4 Work the mix firmly onto the prepared substrate, strike off with the brush in one direction for a neat appearance and to provide a mechanical key for the second coat.



- 4.5 A minimum of 3 - 5 hours, depending on the prevailing ambient temperature, should be given for the first coat to cure before applying the second coat.
- 4.6 If the first coat is left exposed for a long period of time, it is recommended to wash the surface with water and to remove any excess moisture before applying the second coat, in order to ensure a dust free surface.
- 4.7 Fiber reinforced mesh or more preferably **AquaProof Tape Flex** can be placed into the first coat and pressed firmly while still wet prior to the application of the second coat to the areas of wall/floor angle connections, cold joints and cracks.



- 4.8 For brush application, the second coat should be applied in a perpendicular direction to the previous layer to ensure good bond and coverage.
- 4.9 To achieve a smooth finish, it is recommended to finish the surface with a trowel immediately after brushing the second coat. The total dry film thickness for both coats should be 2 mm.
- 4.10 If a cementitious plaster or cementitious tile adhesive (recommended C2TE grade) is to be applied over **Setseal B**, finish off the second coat with horizontal brush strokes to give more grip.
- 4.11 Condensation of water may occur in the curing phase of the first coat if **Setseal B** is applied in closed or badly ventilated areas. In such cases, any standing water has to be removed from the surface.



Coverage of Setseal B:

Approximately 12 – 13 m² per 23 kg pack, for one coat @ 1 mm thickness.

Note: Coverage highly depends on the condition of the surface and method of application.

5.0 Cleaning

- 5.1 All tools should be cleaned immediately after finishing using clean water.
- 5.2 Hardened materials should be cleaned mechanically.

6.0 Remarks

- 6.1 Confirm availability of mixing equipment.
- 6.2 Check the substrate in advance. Ensure that the substrate is in good condition and clean.
- 6.3 Do not change the product mixing ratio.
- 6.4 No standing water should remain during application.
- 6.5 **Setseal B** should not be applied onto frozen substrates or if ambient temperature is around 5°C and falling.
- 6.6 The area must not be exposed to standing or moving water during application.
- 6.7 In ventilated areas, **Setseal B** typically reaches a shore A hardness of over 80 after 24 hours from the application of the second coat (at 23 ± 2°C and relative humidity of 50 ± 5%) which allows for the water ponding test to start at this period. However, at temperatures below 21°C or relative humidity higher than 55%, it is recommended to wait for a period of 48 hours after the application of the second coat in order to conduct the water ponding test.
- 6.8 In confined or unventilated areas, it typically recommended to wait 5 – 7 days after the application of the second coat, in order to conduct the water ponding test.
- 6.9 Where cementitious plaster is to be applied over **Setseal B**, a mix of sand, cement and **Cempatch SBR** should be sprayed over **Setseal B** as key. Addition rate of **Cempatch SBR** should be 10 litre/50 kg bag of cement.



Section C : Cautions

Health and safety

Setseal B may cause irritation to skin or eyes. Avoid contact with skin or eyes. In case of accidental contact with eyes, immediately flush with plenty of water for at least 10 minutes and seek medical advice if necessary.

Fire:

Setseal B is nonflammable.

For further information on refer to the Material Safety Data Sheet.

Section D : Approval and Variations

This method statement is offered by DCP as a 'standard proposal' for the application of **Setseal B**. It remains the responsibility of the Engineer to determine the correct method for any given application. Where alternative methods are to be used, these must be submitted to DCP for approval, in writing, prior to commencement of any work. DCP will not accept responsibility or liability for variations to the above method statement under any other condition.