

Setseal 100C

Acrylic cement modified one component waterproof and protective coating



DESCRIPTION

Setseal 100C is a one components; flexible polymer modified cementitious coating used for waterproofing and protection of concrete structures against carbonation, chloride ions and water.

Setseal 100C provides a hardwearing, seamless, protective waterproof membrane for potable water retaining structures, tanks, bridges, foundations and culverts.

APPLICATIONS

- » Water retaining structures and reservoirs.
- » Basements, foundations and roofs.
- » Bathrooms, kitchens and wet areas.
- » Bridge abutments.
- » Protection of concrete substrates and masonry against carbon dioxide, chloride ions, water and de-icing salts.
- » Works as a barrier for rising damp and efflorescence when applied on concrete or masonry walls, providing extra durability for subsequent paint or plaster.

ADVANTAGES

- » Single component, need only water additions.
- » Exceptional weathering resistance.
- » Non-toxic, approved for use in contact with potable water.
- » Fungus, mould resistant.
- » Low water vapour permeability.
- » Anti-carbonation and durable waterproofing properties.
- » Durable, excellent protection against carbon dioxide, chloride ions and water.
- » Cost effective, quick and easy brush or spray application.
- » Suitable for internal and external applications.
- » Can be painted.
- » Non-corrosive to steel or iron.

METHOD OF USE

SUBSTRATE PREPARATION

The surfaces to be coated should be clean, sound, and free from contamination. Remove any traces of curing compound, laitance, organic growth or any other loose materials.

This is best obtained by using high pressure water or light grit blasting. Substrate containing honey combing, damaged or deteriorated concrete should be repaired using suitable repair mortars from DCP repair systems before coating.

TECHNICAL PROPERTIES @ 25°C:

Colour:	Grey powder
Mixed density:	1.85 ± 0.05 g/cm ³
Working time:	1 hr
Open time:	10 min
Initial setting:	4 - 5 hr
Application temperature:	5 to 45°C
Flow:	
Brushable consistency @ W/P	
Sprayable consistency @ W/P	0.31 0.35 - 0.40
Compressive strength: ASTM C109 (mortar consistency)	≥ 15 MPa @ 28 days
Bond strength: ASTM 4541-02	> 1.5 MPa
Tensile strength: BS 6319, Part 7 (mortar consistency)	≥ 1.5 MPa
Flexural strength: BS 6319, Part 3 (mortar consistency)	≥ 4 MPa
Water permeability: DIN 1048 (4 bars)	0% @ thickness > 2 mm
Water vapour transmission rate: EN ISO 7783-2	V ₂ 24 g/(m ² .d) @ 1 mm film thickness
Reduction in chloride ion penetration: (compared to uncoated substrate)	> 95%
Reduction in carbonation depth: (compared to uncoated substrate)	> 85%
Taber abrasion resistance: (1000 g/100 cycle) ASTM D4060, weight loss CS17 wheel	97 milligram



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PRIMING

No special primer is required, but substrate should be pre-soaked with clean water prior to application of Setseal 100C.

MIXING

To ensure proper mixing, a mechanically powered mixer or drill fitted with suitable paddle should be used. Add the water to a clean container.

The powder component is then added slowly to the water while mixing continuously with low speed mixer/drill (400 - 600 rpm). Mixing time should be continued for 3 minutes until a uniform consistency is obtained.

For brush application: mix the 15 kg powder with 4.7 litres of water (W/P 0.31).

For spray application: mix the 15 kg powder with 5.25 - 6.00 litres of water (W/P 0.35-0.4).

APPLICATION

Setseal 100C can be applied by brush, or spray machines. The mixed material should be brushed well into the surface. Strike off with brush in one direction.

Care must be taken not to spread the materials too thin. The first coat should be applied at a wet film thickness of 1mm. When the material begins to drag, do not add any water, but dampen the surface again.

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.

If the first coat is fully dried, pre-soaking is needed before applying the second coat. For brush applications, the second coat should be applied in a perpendicular direction to the previous layer to ensure good bond and coverage.

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 of both coats should be 2 mm.

TECHNICAL PROPERTIES @ 25°C:

Pencil Hardness:
F-H according to ASTM D3363 Pass

VOC: < 10 g/ltr

Note: These results were achieved using 2 mm thickness.

REMARKS

- » Setseal 100C should not be applied to frozen substrates or if ambient temperature is below 5°C or expected to fall below 5°C.
- » The area must not be exposed to moving water during application.
- » Setseal 100C can be submerged with water after 5 – 7 days of application depending on ambient temperatures and relative humidity.

CLEANING

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

PACKAGING

Setseal 100C is available in 15 kg bags.

COVERAGE

Approximately 10.6 m²/15 kg for one coat @ 1 mm thickness.

STORAGE

Setseal 100C has a shelf life of 12 months from date of manufacture if stored at temperatures range between 5°C and 40°C.

If these conditions are exceeded, DCP Technical Department should be contacted for advise.



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CAUTIONS

HEALTH AND SAFETY

As Setseal 100C contains Portland cement, Setseal 100C may cause irritation to 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.

For further information refer to the Material Safety Data Sheet.

FIRE

Setseal 100C is nonflammable.

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Note:

We endeavour to ensure that any information, advice or recommendation we may give in product literature is accurate and correct. However, because we have no control over where and how products are applied, we cannot accept any liability arising from the use of the products.

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