

Setseal C

Flexible acrylic cement modified two component waterproof and protective coating



DESCRIPTION

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

Setseal C 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.

ADVANTAGES

- › Durable, excellent protection against carbon dioxide, chloride ions and water.
- › 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.
- › 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, mold release agents, organic growth, or any other loose materials. This is best obtained by using high pressure water or light grit blasting.

Honey combing, damaged or deteriorated concrete exists, the substrate should be repaired using suitable low permeability repair mortar from DCP repair systems before commencing the coating.

Note: Solvent based primers and coatings like Repcoat primer and Setseal A should be removed mechanically before applying Setseal.

TECHNICAL PROPERTIES @ 25°C:

Mixed density:	1.8 ± 0.1 g/cm ³
Mixing ratio:	5 kg liquid polymer with 15 kg powder
Working time:	45 min
Minimum application temperature:	5°C
Compressive strength: ASTM C109	≥ 10 MPa @ 7 days ≥ 18 MPa @ 28 days
Tensile strength: BS 6319, Part 7	> 2.0 MPa @ 7 days > 2.5 MPa @ 28 days
Bond strength: ASTM D4541	≥ 1 MPa @ 28 days
Flexural strength: BS 6319, Part 3	> 4 MPa @ 7 days > 5 MPa @ 28 days
Resistance to water pressure: DIN 1048	> 30 m (3 bars) positive (2 mm thickness)
Reduction in chloride ion penetration: (compared to uncoated substrate)	> 95%
Reduction in carbonation depth: (compared to uncoated substrate)	> 85%
VOC:	< 10 g/ltr (powder) < 20 g/ltr (liquid)

Note: These results were achieved using 2 mm thickness.

PRIMING

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

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MIXING

To ensure proper mixing, a mechanically powered mixer or drill fitted with suitable paddle should be used. The 5 kg of Setseal C liquid should be added to a clean container. The 15 kg powder is then added slowly to the liquid 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.

APPLICATION

Setseal C can be applied by brush or spray. The mixed material should be brushed well into the surface. Strike off with the brush in one direction. Care must be taken not to spread the material too thin. When the material begins to drag, do not add any water, but dampen the surface again.

Leave the first coat overnight to cure before applying the second coat. If the first coat is left for more than one day or if it is very dry, pre-soaking with clean water is needed before applying the second coat. Under the proper ventilation conditions, the second coat can be brushed on after 4 hours, following a similar application method as the first layer. It's advisable to apply it perpendicular to the previous layer to ensure optimal bonding and coverage.

Under the same ventilation conditions, tiling over the waterproofing could start 4 hours after the application of the second layer.

CLEANING

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

REMARKS

- » Setseal C should not be applied to frozen substrate or if ambient temperature is below 5°C or expected to fall below 5°C.
- » * Fair faced concrete should be roughened mechanically to ensure good adhesion, if this is not possible contact DCP technical department for advice.
- » Ensure proper ventilation during waterproofing system application and curing for optimal results.

PACKAGING

Setseal C is available as 20 kg packs (5 kg polymer & 15 kg powder).

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COVERAGE

Approximately 11.5 - 12.5 m²/20 Kg for one coat @ 1 mm thickness, depending on the condition of the surface and method of application.

STORAGE

Setseal C has a shelf life of 12 months from date of manufacture if stored at temperatures between 5°C and 35°C.

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

CAUTIONS

HEALTH AND SAFETY

As Setseal C contains Portland cement and sand, Setseal C 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 advise.

For further information refer to the Material Safety Data Sheet.

FIRE

Setseal C is nonflammable.

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- » Concrete admixtures.
- » Surface treatments
- » Grouts and anchors.
- » Concrete repair.
- » Flooring systems.
- » Protective coatings.
- » Sealants.
- » Waterproofing.
- » Adhesives.
- » Tile adhesives and grouts.
- » Building products.
- » Structural strengthening.



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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