

Setseal CM

Two component acrylic cement modified waterproof and protective coating



DESCRIPTION

Setseal CM is a two component polymer modified cementitious coating used for waterproofing and protection of concrete structures and suitable for internal and external applications. Setseal CM is specially designed to be applied by brush or trowel, depending on the mixing ratio. Setseal CM provides a 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 and water.

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.
- » Tolerates fine "hairline" cracks.
- » Breathable, water vapor permeable.
- » Cost effective, quick and easy brush or trowel application.
- » Suitable for internal and external applications.
- » Can be painted. Consult DCP technical department for more information.
- » Non-corrosive to steel or iron.

METHOD OF USE

SUBSTRATE PREPARATION

The surfaces to be coated should be clean, sound, and free from any contamination. Remove any traces of curing compound, mold/formwork release agents, laitance, 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.

Notes:

- » Solvent based primers and coatings like Repcoat primer and Setseal A should be removed mechanically before applying Setseal CM.

TECHNICAL PROPERTIES @ 25°C:

Mixed density:	2.0 ± 0.1 g/cm ³
Mixing ratio by weight:	
Brushable (slurry) consistency	1:4.1 (full pack) 4.9 kg liquid polymer with 20 kg powder
Trowelable consistency	1:4.5 (90% liquid to full bag) 4.41 kg liquid polymer with 20 kg powder
Working time:	45 min
Minimum application temperature:	5°C
Compressive strength: ASTM C109	≥ 25 MPa @ 28 days
Tensile strength: ASTM D412	> 0.75 MPa @ 28 days @ slow speed rate
Bond strength: ASTM D4541	≥ 1.2 MPa @ 28 days
Flexural strength: ASTM C348	> 10 MPa @ 28 days
Elongation: ASTM D412	≥ 10% @ slow speed rate
Resistance to water pressure: DIN 1048	> 30 m (3 bars) positive (2 mm thickness)
VOC:	< 10 g/ltr

Note: These results were achieved using 2mm thickness, 1:4.1 mixing ratio, and 400 rpm drill mixing speed.

- » For Fair-face concrete, it is recommended to clean and prepare the surface by performing slight mechanical roughening, or applying water jetting to enhance the adhesion of Setseal CM and prevent peeling.

PRIMING

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

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MIXING

To ensure proper mixing, a mechanically powered mixer or drill fitted with suitable paddle should be used.

For brushable (slurry) consistency, full pack of Setseal CM should be used. The 4.9 kg of Setseal CM liquid should be added to a clean container. The 20 kg powder is then added slowly to the liquid while mixing continuously with low speed mixer/drill (200 - 400 rpm).

For trowelable consistency, 90% of the liquid part of Setseal CM should be used. 4.41 kg of Setseal CM liquid should be added to a clean container. The 20 kg powder is then added slowly to the liquid while mixing continuously with low speed mixer/ drill (200 - 400 rpm). Mixing time should be continued for 3 minutes until a uniform consistency is obtained.

APPLICATION

Setseal CM can be applied by brush or trowel. The mixed material should be worked well into the surface filling all pores and voids. Strike off 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 a long period of time, it is recommended to wash the surface with water before applying the second coat, in order to ensure a dust free surface.

The second coat shall be applied in a similar way to the first layer but preferably perpendicular to the previous layer to ensure good bond and coverage. For trowel application, apply the first coat with a notched trowel and leave to cure overnight. Apply the second coat with a flat trowel.

CLEANING

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

REMARKS

Setseal CM should not be applied to frozen substrate or if ambient temperature is below 5°C or expected to fall below 5°C.

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PACKAGING

Setseal CM is available as 24.9 kg packs (4.9 kg polymer & 20 kg powder).

COVERAGE

Approximately 12 - 13 m²/24.9 kg for one coat @ 1 mm thickness, depending on the condition of the surface and method of application.

STORAGE

Setseal CM 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, contact DCP Technical Department for advice.

CAUTIONS

HEALTH AND SAFETY

As Setseal CM contains Portland cement and sand, Setseal CM 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.

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

FIRE

Setseal CM is nonflammable.

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A wide range of construction chemical products are manufactured by DCP which include:

- » 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.