

# Cemflow Base

Pump applied base screed



## DESCRIPTION

Cemflow Base is a self-smoothing, dimensionally stable, fast drying and pump-applied levelling base screed for use under Cemflow Topping or resin-based materials where thicker applications are required when upgrading and renovating new and existing internal floors.

Cemflow Base is supplied as a pre-blended dry powder designed for application between 5 mm to 50 mm (in one application) to provide a sound base.

Typically, Cemflow Base can be pumped up to 900 m<sup>2</sup> per day. Coverage of 400 m<sup>2</sup> can be achieved when hand applied, dependent upon manpower and equipment used.

## APPLICATIONS

Cemflow Base is suitable for use in a wide range of industrial environments such as warehouses, food processing plants etc.

It is important to note that Cemflow Base is not a final wearing surface and should be overlaid with a minimum 5 mm application of Cemflow Topping or a resin-based coating or screed, where a wearing surface is required.

## ADVANTAGES

- » Single component, requires only addition of water.
- » Fast setting.
- » Easy and fast application.
- » Excellent adhesion.
- » High coverage efficiency.
- » Thick application potential.

## METHOD OF USE

### SUBSTRATE PREPARATION

Concrete and sand/cement screeds must be sound, dry and fully cured (not subject to shrinkage) and any laitance or surface treatments must be removed by mechanical means such as grit blasting. The surface tensile strength of the substrate should be a minimum 1.5 N/mm<sup>2</sup>.

The concrete substrate should be below 75% RH alternatively Strongcoat DPM should be applied. The temperature of the floor must be maintained above 10°C throughout the application and drying of the Cemflow Base.

## TECHNICAL PROPERTIES @ 20°C:

Working time:	20 – 30 min
Setting time:	3 hr
Foot traffic:	3 hr
Light traffic:	24 hr
Compressive strength: EN 13892-2	> 15 N/mm <sup>2</sup> @ 1 day > 25 N/mm <sup>2</sup> @ 7 days > 30 N/mm <sup>2</sup> @ 28 days
Flexural strength: EN 13892-2	> 2 N/mm <sup>2</sup> @ 1 day > 5 N/mm <sup>2</sup> @ 7 days > 7 N/mm <sup>2</sup> @ 28 days
Flow properties using 30mm Ø x 50 mm flow ring: EN 12706	110 – 130 mm
Consumption per mm thickness:	1.814 kg/ m <sup>2</sup>
Application thickness:	5 - 50 mm

Prior to application on to impervious surfaces the area should be thoroughly cleaned and lightly scarified. Any existing surfaces should be well bonded (> 1.5N mm<sup>2</sup>).

The perimeter of the room and any columns should be isolated using a compressible strip. For application over underfloor heating please contact DCP Technical Department for specific advice.

## PRIMING

### TO CONCRETE AND CEMENT SCREEDS

For application onto sand/cement screeds, concrete and other porous substrates, first seal the prepared surface by applying one coat of Cemflow Primer diluted with 3 parts potable water and allow to dry.

Apply a second coat of primer diluted 3:1 by the same method and allow thoroughly to dry. Depending on the porosity of the substrate a further coat may be required.

To confirm if this is necessary a small application area should be undertaken to ascertain the correct priming requirements. As an alternative, Strongcoat Primer may be used.

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## PRIMING WITH STRONGCOAT PRIMER

Apply one coat Strongcoat Primer and allow to cure. Apply 2<sup>nd</sup> coat and whilst still tack fully blind with DCP Aggregate at approximately 3 kg/m<sup>2</sup> until the surface is covered and no resin spots remain.

The rate of application is approximately 3 kg/m<sup>2</sup>. Allow to dry fully overnight and remove excess aggregate before applying the Cemflow Base.

## TO IMPERVIOUS SURFACES

For application on to impervious surfaces, such as tiles, coatings or onto Strongcoat DPM (please read relevant product technical data sheet). Apply Strongcoat Primer and whilst it is still tacky fully blind with DCP Coarse Aggregate at approximately 3 kg/m<sup>2</sup>, until the surface is covered and no resin spots remain.

Allow to dry fully overnight and remove excess aggregate before applying the Cemflow Base.

## MIXING

### PUMP APPLICATION

Mix the powder and water according to the method recommended by the pump manufacturers. In the case of pumps having a continuous water feed adjust the rate of water flow until the mix is a smooth fluid, uniform grey liquid with no surface separation, producing a flow of approximately 130 mm using a 35cc flow ring.

### HAND APPLICATION

Use a power-whisk fitted in a heavy-duty slow speed electric drill. Mix in the proportion of 25 kg of powder to 4.0 – 4.5 litres of potable water.

Pour the water into a suitably sized bucket and gradually add the powder while stirring, until a smooth, lump free consistency is achieved. Leave to stand for 2 - 3 minutes and mix briefly for 1 minute before applying.

## APPLICATION

Pour or pump the mixed material onto the prepared surface and allow to attain a smooth finish. The use of a spiked roller will help eliminate entrapped air and smooth out flow lines.

Apply at a thickness between of 5 mm to 50 mm in one pass only. Apply Cemflow Topping over Cemflow Base when it is at least 24 hours old and the surface is primed with Cemflow Primer diluted with 3 parts water.

For resin screeds allow at least 72 hours before priming with the appropriate primer. Where materials are to be applied over the surface of the hardened Cemflow Base, it is good practice to STR the surface prior to carrying out subsequent treatments.

## PRECAUTIONS

- » Do not place when the substrate temperature is below 10°C or when the ambient temperature is 10°C and falling.
- » Protect from frost.
- » Do not exceed the maximum recommended water content and only use potable cold water.
- » This product is not recommended for external use or situations where water may come into direct contact with the cured material.
- » This product should not be applied to asphalt or bituminous surfaces.

## CLEANING

Wash tools with water immediately after use.

## PACKAGING

25 kg paper sacks.

## COVERAGE

A 25 kg bag using 4.25 litres of clean water will yield approximately 13.8 litres.

A 25 kg pack of Cemflow Base will cover approximately 1.4 m<sup>2</sup> at 10 mm thickness.

## STORAGE

Protect from frost and store under dry warehouse conditions at a temperature between 10°C and 30°C.

## SHELF LIFE

6 months in unopened bags and stored under good conditions.

## HEALTH AND SAFETY

Consult the appropriate Material Safety Data Sheet prior to using each product.

## MORE FROM DON CONSTRUCTION PRODUCTS

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.



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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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DCP Building Excellence