Industrial grade floor topping



## Description

Cemflow Topping S is designed as an industrial grade floor topping for upgrading and renovating new and existing internal floors.

Cemflow Topping S is supplied as a pre-blended dry powder designed for application between 5 - 15 mm (in one application) to provide a finished industrial floor.

## Applications

Suitable for use in a wide range of industrial environments subjected to medium to heavy traffic such as:

- ▲ Warehouses.
- ▲ Food processing plants.

## Advantages

- ▲ Self-smoothing.
- ▲ Dimensionally stable.
- ▲ Fast drying.
- Can be pumped to cover an area of 2000 m<sup>2</sup> per day. Alternatively a coverage of 600 m<sup>2</sup> per day can be achieved when hand applied, depending on manpower and equipment used.

## Method of Use

#### Substrate Preparation

Concrete substrates should be fully cured and achieve a minimum compressive strength of 25 N/mm<sup>2</sup> and a minimum pull-off strength of 1.5 N/mm<sup>2</sup>. The concrete substrate should be below 75% RH and have less than 4% moisture content. Alternatively, Strongcoat DPM should be applied according to the priming section.

#### Surface Preparation

Concrete surfaces must be degreased using degreasing products, torching or any other suitable method which assures the surface is free from any oil traces. Surfaces should be sound and with no irregularities as they can affect the finish of the applied product.

Concrete surfaces are to be mechanically prepared to remove laitance and achieve a flat surface, grit blasting or surface profiling equipment are preferred.

#### Technical Properties:

Flow properties using 35cc flow ring: ISO 554	Initial ≥ 130 mm After 15 min ≥ 120 mm
Workability:	15 min @20°C
Vicat setting time:	1.5 hr @20°C
Foot traffic: Light traffic:	24 hr @ 25°C 48 hr @ 25°C
*Compressive strength: ASTM C109/109M-02	> 25 MPa @ 7 days > 35 MPa @ 28 days
Flexural strength: BS 6319, Part 3 : 1990	> 5 MPa @ 7 days > 8 MPa @ 28 days
Shrinkage (μ/m): ASTM C490-00a	< 400 @ 28 days
Abrasion resistance: BS 8204, Part 2:1999	Special class
Slip resistance: BS 8204, Part 2: 1999 Dry Wet	
Application thickness:	5 - 15 mm
Bond strength to concrete:	> 1.5 MPa @ 28 days

\*Note: dry cure for compressive and flexural strengths @  $25^{\circ}$ C. W/P = 0.19.

Acid etching can be used after consulting with DCP's Technical Department.

Surface defects such as voids and blowholes should be repaired before application. Consult DCP's Technical Department for the best repair material.

Surfaces must be free of any dust or loose particles before product application. Use suitable methods like vacuuming or sweeping.

If possible, apply the product on a small test area before actual application to check for any problems with the surface preparation.

#### Priming

Priming is done to seal the substrate in order to prevent pin holing caused by the release of air from the substrate. The following priming options are available:

#### **Cemflow Primer**

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.

Prime the sealed surface by applying a second coat of Cemflow Primer diluted with 3 parts potable water and brush well into the surface. The primer must be allowed to dry before the application of Cemflow Topping S.

#### Strongcoat Primer

For impervious surfaces, apply one coat of Strongcoat Primer and whilst still tacky fully blind with Antislip Aggregate #2 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 Cemflow Topping S.

For porous substrates, apply one coat of Strongcoat Primer and allow to cure. Apply second coat and whilst still tacky fully blind with Antislip Aggregate #2 in the manner mentioned above.

#### Strongcoat DPM

For surfaces with RH between 75 and 85%, prime with 1 coat of Strongcoat DPM and allow to dry prior to application of Strongcoat Primer. For surfaces with RH greater than 86%, prime with 2 coats of Strongcoat DPM and allow the second coat to dry before priming with Strongcoat Primer.

After Strongcoat DPM has been applied and left to cure, apply Strongcoat Primer and whilst it is still tacky fully blind with Antislip Aggregate #2 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 Cemflow Topping S.

#### Mixing

#### 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 4.75 - 5.25 litre 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.

#### 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 160 mm using a 50 cc flow ring.

#### 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 - 15 mm in one pass only. It is always better to work in manageable sections of approximately 20m<sup>2</sup>.

#### Curing

Curing is not required in normal conditions, but in harsh climatic conditions like direct sunlight, flow of wind, elevated temperatures, etc; freshly hardened concrete surfaces should be cured with damp Hessian or to be covered with polyethylene sheets

#### Precautions

- Don't place when the substrate temperature is below 5°C or when the ambient temperature is 5°C and falling.
- ▲ Protect from frost.
- Don't exceed the recommended water content and only use potable water.
- This product is not recommended for external use or situations where water may come into direct contact with the cured material.
- ▲ For hot climate conditions (temperature > 35°C), special procedures should be conducted.
- The material should not be used on floors where rising damp is valid, unless a suitable primer is used.

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### Cleaning

Tools and equipment can be cleaned with water immediately after use.

## Packaging

Cemflow Topping S is available in 25 kg bags. Cemflow Primer is available in 5 and 25 litre pails.

#### Coverage

Cemflow Topping S: 2.9  $m^2 @ 5 \mbox{ mm}$  thickness for 25 kg bag mixed with 5 litre of clean water.

Cemflow Primer when diluted 3 parts potable water to one part primer:

- ▲ 40 m²/5 litre.
- ▲ 200 m²/25 litre.

#### Storage

Store in a dry area out of frost at temperatures between  $5^{\circ}$ C and  $30^{\circ}$ C.

#### Shelf Life

Cemflow Topping S has a shelf life of 9 months from date of manufacture if stored in proper conditions and unopened packs.

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

#### Cautions

#### Health and Safety

Cemflow Topping S 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 if necessary.

For further information refer to the Material Safety Data Sheet.

#### Fire

Cemflow Topping S 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 endeavor to ensure that any advice, recommendation or information we may give in product literature is accurate and correct. However, due to the fact that we have no direct or continuous control over where or how the products are applied, DCP cannot accept any liability either directly or indirectly arising from the use of DCP products, whether or not in accordance with any advice, specification, recommendation or information given by us.

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