

# Cemflow Sealer

Water-based, polyurethane concrete and screed sealer



## DESCRIPTION

Cemflow Sealer is a two-component, water-dispersed polyurethane sealer designed to protect and seal screeds and concrete surfaces, providing an abrasion resistant, hygienic and durable floor finish. The application of Cemflow Sealer helps to protect the floor surface and ease maintenance by reducing the adhesion of dirt and other debris, whilst eliminating dusting.

Cemflow Sealer can also be used as sealer over existing epoxy/polyurethane flooring systems, to improve slip and abrasion resistance, as well as provide an anti-stain finish. Cemflow Sealer cures by a chemical crosslinking reaction and water evaporation, providing durability, toughness and chemical resistance that far exceed that of one-component acrylic or polyurethane sealers.

## APPLICATIONS

Cemflow Sealer is designed to seal a variety of Cemflow, Strongcoat and Griptop flooring systems, as well as screeds in the following:

- » Retail spaces such as stores and showrooms.
- » Health care facilities such as hospitals and clinics.
- » Business facilities such as offices and lobbies.
- » Museums, theatres and shopping malls.
- » Educational premises such as universities, schools and colleges.
- » Industrial facilities such as warehouses, production, maintenance and assembly areas.
- » General food processing and manufacturing plants.

## ADVANTAGES

- » Excellent UV stability, non-yellowing.
- » Provides a slip resistant finish.
- » Extremely easy to clean and maintain.
- » Low VOC content, and low odour.
- » Resistant to many of the chemicals commonly found in industrial applications.
- » Water based, environmentally friendly.
- » Excellent abrasion and scratch resistance.
- » High bond strength to porous and non-porous substrates.
- » Excellent water and stain resistance, prevents penetration of oils and liquids.
- » Excellent resistance to dust and dirt pickup.

## TECHNICAL PROPERTIES FOR CEMFLOW SEALER:

|  |   |
|--|---|
| Mixed density:   | 1.05 ± 0.05 g/ml  |
| Solid content:   | 44 ± 1%   |
| Tack free time @ 25°C  |   |
| Absorbent surfaces   | 20 – 30 min   |
| Non-absorbent surfaces   | 30 – 40 min   |
| Light foot traffic time:   | 24 hr   |
| Full cure:   | 7 days  |
| Bond strength:<br>EN 1542  | ≥ 2.5 MPa<br>(concrete failure)                         |
| UV Resistance:<br>ASTM G154, Cycle 1<br>8 hr UV light @ 60°C<br>4 hr condensation @ 47°C | Excellent<br>Pass QUV accelerated<br>weathering 2000 hr |
| Glossiness @ 60°C:   | Matt finish   |
| Abrasion resistance:<br>(1000 g, 1000 cycles)<br>ASTM D4060, weight loss<br>CS17 wheel   | ≤ 60 milligram  |
| Slip resistance:<br>BS 7976, Slider 96   | Dry 65<br>Wet 41  |
| VOC:   | ≤ 10 g/ltr<br>(comply with LEED)                        |

## METHOD OF USE

### SUBSTRATE PREPARATION

#### *Absorbent surfaces (cementitious screeds)*

Prior to applying Cemflow Sealer on absorbent surfaces such as cementitious screeds, ensure the surfaces are clean, dry, and free from dust, debris, or other contaminants.

#### *Old or existing non-absorbent surfaces*

These include existing epoxy or polyurethane coatings, and tiles such as glazed ceramic or porcelain.

The existing surface must be clean, dry and free from dust, debris or other contaminants. Make sure the existing flooring system is intact and properly bonded to the substrate before the application of Cemflow Sealer.



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## MIXING

For best results, mix component A with component B for a minimum of 2 minutes using a high speed mixer, such as a drill with paddle attachment. Once mixed leave to rest for 5 minutes, and then remix to consistency at a slow speed.

## APPLICATION

Cemflow Sealer may be applied using a short nap roller or airless spray to completely cover and seal the surface. Most consistent finishes are obtained by spray.

For cement-based surfaces and absorbent materials, apply a preliminary coat mixed at a ratio of 1 part Cemflow Sealer to 6 parts water. This should be followed by 1 or 2 coats of neat Cemflow Sealer.

For non-absorbent substrates such as glazed ceramic and porcelain tiles, existing epoxy or polyurethane coatings, Cemflow Sealer should be used neat without dilution, applied in 1 or 2 coats.

When using rollers, wet them out when starting application, taking into consideration the amount of material the roller will absorb. The roller will absorb approximately 250 - 400 ml of the material. Start coating the floor by cutting in the edges with a brush and/or small roller.

To minimise roller marking when the finish is applied by this method, pour neat Cemflow Sealer into a roller tray and apply it evenly in the same direction over the surface. The material is then cross rolled in the opposite direction. Do not overlap more than 50 mm onto the prior pass.

When applying a second coat of Cemflow Sealer, it is recommended that this be applied at an angle of 90 degrees to the first coat to ensure complete coverage. Under typical conditions, a second coat can be applied approximately 10 - 12 hours after the first.

## SLIP RESISTANCE

Cemflow Sealer has excellent slip resistance in dry conditions, however when wet, the risk of slip is increased. Spillages should be cleaned up as soon as possible. If the surface is likely to be used in a wet environment and a slip resistant finish is required, please contact DCP Technical Department for more details.

### Notes:

- » *The coverage rate of Cemflow Sealer will be considerably reduced when using it to seal aggregates.*
- » *Any spillages of liquids must be cleaned up quickly with wet floor signage to avoid slips.*

## PRECAUTIONS

- » Surface and ambient temperatures during coating application must be between 10°C and 35°C.
- » All material should be at a minimum temperature of 10°C and rising. Precondition the material for at least 24 hours at 15 - 25°C prior to use.
- » Avoid condensation by ensuring the substrate temperature is at least 3°C above the measured dew point.
- » Low temperatures and/or high humidity will increase curing time.
- » Protect the material from drafts, wind and direct sunlight during application and throughout the curing period to ensure optimal performance.
- » Provide adequate ventilation to ensure good bond development and continuous film formation.
- » Do not pour Cemflow Sealer directly onto the surface of the Cemflow Cementitious Flooring Range.
- » The use of Cemflow Sealer as a UV-resistant topcoat may not prevent discolouration of underlying coatings.
- » Do not allow the product to puddle or be applied at excessive thickness, as this will extend drying times and may result in a cloudy white finish.
- » Cemflow Sealer has no visible end of pot life; monitor time and temperature closely.
- » Apply the material preferably within 4 hours of mixing at 25°C. Maintaining a continuous wet edge will help achieve a seamless finish.
- » After application, protect the surface from direct water contact for at least 24 hours.

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## CLEANING

Once mixing, application and finishing are complete, tools can be cleaned with warm soapy water.

## PACKAGING

Cemflow Sealer is available in 5 kg kits.

### COVERAGE

|                  | Absorbent surface                | Non-absorbent surface         |
|------------------|----------------------------------|-------------------------------|
| First coat       | 10 m <sup>2</sup> /ltr (diluted) | 10 m <sup>2</sup> /ltr (neat) |
| Subsequent coats | 10 m <sup>2</sup> /ltr (neat)    | 10 m <sup>2</sup> /ltr (neat) |

*Note: Coverage rates are approximate and will vary according to amount of overcoating during application and substrate porosity. Each subsequent coat will generally require less material.*

## STORAGE

Cemflow Sealer has a shelf life of 6 months from date of manufacture if stored in dry conditions at temperatures between 5°C and 30°C, in original unopened containers and under good conditions.

If these conditions are exceeded, contact DCP Technical Department for advice.

## OCCASSIONAL SPILLAGE

**Chemical Resistance after full cure (7 days @ 25°C), ASTM D1308 (Spot - test @ 24 hr)**

### Organic Acids

|                  |    |
|------------------|----|
| Lactic Acid      | RD |
| Balsamic Vinegar | R  |
| Acetic Acid 10%  | R  |

### Inorganic Bases

|                      |   |
|----------------------|---|
| Sodium Hydroxide 50% | R |
|----------------------|---|

### Aqueous Solutions

|                      |   |
|----------------------|---|
| Sodium Chloride 3.5% | R |
| Tap Water            | R |

### Household Chemicals

|               |    |
|---------------|----|
| Ketchup       | R  |
| Mustard       | RS |
| Mayonnaise    | R  |
| Olive Oil     | R  |
| Coffee        | R  |
| Floor Cleaner | R  |
| Ethanol       | R  |

### Oils & Fuels

|            |   |
|------------|---|
| Engine Oil | R |
| Diesel     | R |
| Jet Fuel   | R |

### Inorganic Acids

|                   |    |
|-------------------|----|
| Sulfuric Acid     | RD |
| Hydrochloric Acid | RS |

*R: Resistant*

*RS: Resistant with slight discoloration*

*RD: Resistant with obvious discolouration*



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## CAUTIONS

### HEALTH AND SAFETY

Care should be taken during use and storage to avoid contact with skin, eyes and mouth.  
Wear suitable protective clothing, gloves and eye/face protection.

Should accidental skin contact occur, remove immediately with plenty of clean water. If swallowed, seek medical attention immediately - do not induce vomiting.

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

### FIRE

Cemflow Sealer is nonflammable.

### 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.



**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.