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 is available in clear and pigmented variations. The clear option comes in glossy, satin or matt finishes, while the pigmented option is available in a matt finish.

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 exceeds 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.
- Description Educational premises such as universities, schools and colleges.
- » Industrial facilities such as warehouses, production, maintenance and assembly areas.
- Seneral 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 pick up.

TECHNICAL PROPERTIES FOR CEMFLOW SEALER (CLEAR):

Mixed density: $1.05 \pm 0.05 \text{ g/ml}$

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: 3 days

Bond strength: ≥ 2.5 N/mm²
ASTM D4541 (concrete failure)

UV Resistance: Excellent

ASTM G154, Cycle 1 8 hr UV light @ 60°C, 4 hr condensation @ 47°C

Pass QUV accelerated weathering 2000 hr

≤ 60 milligram

Glossiness @ 60°C: Matt finish

Abrasion resistance: (1000 g, 1000 cycle)

ASTM D4060

EN ISO 1570-1, weight

loss

CS17 wheel

Slip resistance: Dry 65 BS 7976, Slider 96 Wet 41

VOC: ≤ 10 g/ltr

(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. Cemflow Sealer can be used to seal Cemflow Topping and Cemflow Topping Pigmented as soon as 24 hours after the screed has set, depending on temperature and humidity conditions.



Cemflow Sealer

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.

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. For the most consistent and uniform finishes, spray application is recommended.

When using rollers, wet them out at the start of the application, keeping in mind the amount of material the roller will absorb - typically between 250 to 400 ml. Begin coating the floor by cutting in the edges with a brush or small roller. Avoid backrolling and do not overlap more than 50 mm onto the prior pass.

For cement-based and absorbent surfaces:

Begin the application by preparing a diluted solution at a 1:6 ratio of Cemflow Sealer to clean, potable water. Mix thoroughly before use.

Spray a light mist over the surface using a manual or pressurised sprayer. Immediately after spraying, mop the surface using a lightly pre-dampened microfibre mop, working in random, flowing and curving motions to ensure even distribution.

Allow the first coat to dry completely, which typically takes between 3 to 4 hours at 25°C. Once dry, apply a second coat mixed at a 1:4 ratio of sealer to water. Again, spray a fine mist over the surface and mop in the same random and curving pattern to achieve a uniform finish.

After the second coat has fully dried, apply a final undiluted coat of Cemflow Sealer. Spray the neat sealer evenly and immediately mop it in using the same flowing, curving motions. If mopping is not feasible, a short pile roller may be used for the final application.

TECHNICAL PROPERTIES FOR CEMFLOW SEALER (PIGMENTED):

Colour: Available in various

colours

Mixed density: $1.25 \pm 0.05 \text{ g/ml}$

Tack free time @ 22 ± 2°C 0.5 - 1 hr

Light foot traffic time: 24 hr

Full cure: 3 days

Bond strength: ≥ 2.5 N/mm²
ASTM D4541 (concrete failure)

Glossiness @ 60°C: Matt finish

Abrasion resistance: (1000 g, 1000 cycle)

ASTM D4060 ≤ 180 milligram

EN ISO 5470-1 CS17 wheel

Slip resistance: Dry 65 BS 7976, Slider 96 Wet 45

UV Resistance:

ASTM G154, Cycle 1 Excellent

8 hr UV light @ 60°C 4 hr condensation @ 47°C Passed QUV accelerated weathering 2000 hr

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VOC: ≤ 10 g/ltr

(comply with LEED)

For non-absorbent surfaces:

For non-absorbent substrates such as glazed ceramic tiles, porcelain tiles, and surfaces with existing epoxy or polyurethane coatings, Cemflow Sealer should be applied neat, without dilution. One or two coats may be required depending on the specific surface and desired finish.

When applying a second coat on these substrates, it is recommended to apply the second coat at a 90-degree angle to the first to ensure complete coverage.

Cemflow Sealer

OCCASSIONAL SPILLAGE

SLIP RESISTANCE

Cemflow Sealer has excellent slip resistance in dry conditions, however when wet, the risk for 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.

Cemflow Sealer (Pigmented) may be available in slip resistant finishes.

Important: The coverage rate of Cemflow Sealer will be considerably reduced when using it to seal aggregates.

Note: 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.

OCCASSIONAL SPILLAGE			
Chemical Resistance afte 25°C), ASTM D1308 (Spot -			
Organic Acids			
Lactic Acid 8%	R		
Balsamic Vinegar 6%	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 Oil	R		
Oils & Fuels			
Engine Oil	R		
Diesel	R		
Jet Fuel	R		
Inorganic Acids			
Sulfuric Acid 10%	R		
Hydrochloric Acid 10%	R		

R: Resistant RS: Resistant with slight discolouration

Note: Chemical resistance was tested on Cemflow Sealer (Clear)



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

Cemflow Sealer (Clear):			
	Absorbent surface	Non-absorbent surface	
First coat	10 m²/ltr (diluted)	10 m²/ltr (neat)	
Subsequent coats	10 m²/ltr (neat)	10 m²/ltr (neat)	

Cemflow Sealer (Pigmented):			
	Absorbent surface	Non-absorbent surface	
First coat	7 m²/kg (diluted)	7 m²/kg (neat)	
Subsequent coats	7 m²/kg (neat)	7 m²/kg (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.

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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 water based and nonflammable.

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- » Adhesives.
- » Tile adhesives and grouts.
- » Building products.
- Structural strengthening.

Don Construction Products Ltd.

Helions Bumpstead Road, Haverhill CB9 United Kingdom info.uk@dcp-int.com; info@dcp-int.co.uk

www.dcp-int.com



Note

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