

Fast setting, self smoothing, cementitious binder for indoor decorative terrazzo flooring systems

## **DESCRIPTION**

Cemflow Terrazzo is a fast setting, pre-blended dry powder, which can be mixed with a wide variety of synthetic or natural aggregates such as silica sand, marble chips, coloured and clear glass chips and many others to produce a durable and abrasion-resistant decorative terrazzo flooring system; designed for indoor application at 15 to 50 mm thickness depending on the aggregates used.

## **APPLICATIONS**

Cemflow Terrazzo is used to provide a terrazzo decorative flooring system over concrete, old terrazzo, ceramic tiles and natural stones in several areas such as:

- Commercial centers, shops, show-rooms, restaurants.
- » Hospitals.
- » Soft drink and beverage production areas.
- » Pharmaceutical labs.
- » Airport terminals.
- » Schools.
- » Apartments, public buildings and offices.
- » Food processing plants.

## **ADVANTAGES**

- » Single component, requires only the addition of water.
- » Limitless design possibilities.
- » Non-slip.
- » Provides an aesthetic natural appearance.
- » Fast setting properties.
- » Good resistance to abrasion.
- » Low maintenance.
- » Environmentally friendly.

# **STANDARDS**

Cemflow Terrazzo complies with EN 13813, Class CT-C25-F5-AR6.

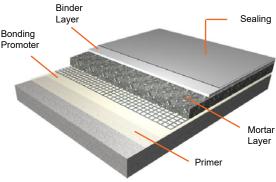
### **METHOD OF USE**

## **SURFACE PREPARATION**

The substrate must be clean, dry, even, dense and free from oil, grease, dust, laitance, loose particles, curing compounds, paints and other contaminants that may compromise the bond of the system. A clean surface will ensure maximum adhesion between the substrate and the system.

Oil and grease contamination must be completely removed using degreasing products, torching or any other suitable method which assures the surface is free from any oil traces. Alternatively, grit blasting techniques can be used to provide the required substrate.





Layer	Product
Priming	Strongcoat UN101 + Antislip aggregates #2
Bonding Promoter	Strongcoat UN101
Mortar Layer	Strongcoat UN101 + Natural aggregates
Binder Layer	Cemflow Terrazzo
Sealing (according to the desired finish)	Monoseal WB - Glossy OR Cemflow Sealer

Concrete surfaces surfaces should be mechanically prepared to remove laitance and achieve a flat surface, shot-blasting, milling, or surface profiling equipment are preferred followed by vacuum cleaning. Surfaces should be sound and with no irregularities as they can affect the finish of the applied product.

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

## SUBSTRATE PREPARATION

Concrete floors must have a minimum compressive strength of 25 N/mm², a minimum pull off strength of more than 1.5 N/mm², and a maximum concrete relative humidity of 75% (max. moisture content of 4%), relative humidity can be measured by using hygrometers.

It is always recommended to apply the product on a small test area before actual application to check for any problems with the surface preparation.

### **PRIMING LAYER**

Concrete substrates should be primed with Strongcoat UN101 (reinforced with fiber glass mesh If required). Use lamb's wool roller to apply the primer. More than one coat may be required for highly porous or textured surfaces.

Work the primer well into the surface of the concrete and while the primer is wet, fully dress the surface with Antislip Aggregates #2 at the rate of 2 - 4 kg/m² and until the surface is covered and no uncovered spots remain.

Allow to dry overnight and remove excess aggregate with a vacuum cleaner before applying the subsequent layers.

## **BONDING PROMOTER LAYER**

Using a Jiffy-type mixer attached to a slow-running electrical drill, mix the Base and Hardener of Strongcoat UN101 for 2 to 3 minutes until a homogeneous mix is obtained.

Apply the mixed Strongcoat UN101 resin using a short-haired roller on the primed substrate.

### **MORTAR LAYER**

Prepare a mix comprising (mixed Strongcoat UN101 and natural aggregates) in a cement mixer and mix for 2 to 3 minutes until a homogeneous mix is obtained.

Representative trials should be conducted to determine the optimum mixing ratio of the aggregates to meet the performance requirements based on the aggregates used.

## TECHNICAL PROPERTIES @ 25°C. W/P = 0.18 FOR MIXED SCREED WITHOUT AGGREGATE:

Mixed density:  $2.05 \pm 0.10 \text{ g/cm}^3$ 

Pot life: 30 min

Setting time:

Initial 70 min Final 120 min

Compressive strength: ≥ 22 MPa @ 7 days EN 13892-2 ≥ 28 MPa @ 28 days

Flexural strength: ≥ 4 MPa @ 7 days EN 13892-2 ≥ 5 MPa @ 28 days

Bond strength on

concrete: ≥ 2.5 MPa @ 28 days

EN 13892-8

BCA wear resistance: AR6

EN 13892-4

Application 5°C to 35°C

temperature:

VOC: ≤ 20 g/ltr

ASTM D2369 (comply with LEED)

For aggregate size 1 - 1.5 cm, the guidance mixing ratio will be: 1:20 (Strongcoat UN101: aggregates)

For aggregate size > 1.5 cm: A preliminary test is recommended to check for a suitable mixing ratio.

Pour the prepared mix on the surface immediately after applying the bonding promoter layer, compact and even out the mortar with a flat trowel or a power trowel immediately after spreading it.

Note: it is important to spread on the mix while the bonding promoter layer is still fresh.

Leave the applied mix to harden for at least 24 hours at normal temperature. (Lower temperatures lead to longer hardening times).

# **CEMFLOW TERRAZZO BINDER LAYER**

Use a power-whisk fitted in a heavy-duty slow speed electric drill. Mix in the proportion of 25 kg of powder to 4.25 - 4.75 litre of potable water. Slowly add the powder while continuous mixing is taking place.

Continue mixing until a smooth, lumps free consistency is achieved. Let it stand for 2 - 3 minutes and before applying, remix the blend for a few minutes. Total mixing time must not be less than 5 minutes.

Using a rubber trowel or spreader, apply the fresh mix on the hardened surface of the aggregates, making sure that all the voids between the aggregates are completely filled.

### **DRY POLISHING**

After 2-3 days (at  $23^{\circ}$ C ambient temperature), a mechanical grinding machine should be used to smooth the surface of Cemflow Terrazzo to achieve a completely smooth and shiny surface which reflects light.

The first "roughing" treatment will lead to the formation of some pinholes that should be prepared by filling them using a small quantity of Cemflow Terrazzo.

The levels of grinding will be defined and specifier, or specialist contractor, according to the specific project requirements.

Complete the polishing operations and pore sealing as specified by the client, contact DCP's Technical Department for further information about the application of Cemflow Terrazzo.

### **SEALING**

To maintain the best results, a water based high performance acrylic sealer, such as Monoseal WB - Glossy, can be used to provide a glossy finish.

For a matt finish, Cemflow Sealer matt PU sealer can be used. Both options will enhance the appearance, as well as the chemical and physical properties, of Cemflow Terrazzo. (See related datasheets for further details).

Contact DCP's Technical Department for further information.

### **REMARKS**

- » Cemflow Terrazzo should not be applied on surfaces known to suffer from damp rising or where concrete relative humidity exceeds 75%.
- » Cemflow Terrazzo should not be applied at temperatures below 5°C or higher than 35°C.
- A mechanical mixer is indispensable when Cemflow Terrazzo is applied using a rendering machine. This is the only method that guarantees that there is a continuous flow of material while casting.

## **CLEANING**

All tools should be cleaned immediately after finishing with water

# **PACKAGING**

Cemflow Terrazzo is available in 25 kg packs.

### THICKNESS RANGE

Between 15 - 50 mm, depending on aggregate size and shape.

### **STORAGE**

Cemflow Terrazzo has a shelf life of 12 months from date of manufacture if stored in a cool dry place at temperatures between 5°C and 30°C.

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

### **CAUTIONS**

## **HEALTH AND SAFETY**

Cemflow Terrazzo should not come into contact with skin and eyes.

In case of contact with eyes, immediately flush with plenty of water and seek medical attention.

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



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- » Grouts and anchors.
- » Concrete repair.
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- » Protective coatings.
- » Sealants.
- » Waterproofing.
- » Adhesives.
- » Tile adhesives and grouts.
- » Building products.
- » Structural strengthening.

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