

Strongcoat Terrazzo

Solvent-free pigmented epoxy resin for decorative terrazzo flooring systems



DESCRIPTION

Strongcoat Terrazzo is a two-component, solvent-free seamless decorative flooring system consists of a highly durable and pigmented epoxy resin 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 decorative epoxy terrazzo flooring system.

APPLICATIONS

Strongcoat Terrazzo is used to provide a seamless and decorative flooring system in several areas such as:

- » Heavy traffic commercial centers.
- » Hospitals.
- » Soft drink and beverage production areas.
- » Pharmaceutical labs.
- » Airport terminals.
- » Schools.
- » Public buildings and offices.
- » Food processing plants.

ADVANTAGES

- » Seamless finish.
- » Hard-wearing system.
- » Non-slip.
- » Provides an aesthetic natural appearance.
- » Low maintenance.
- » Solvent-free; environmentally friendly system.
- » Resistant to a wide range of chemicals, consult with DCP's Technical Department for more details.

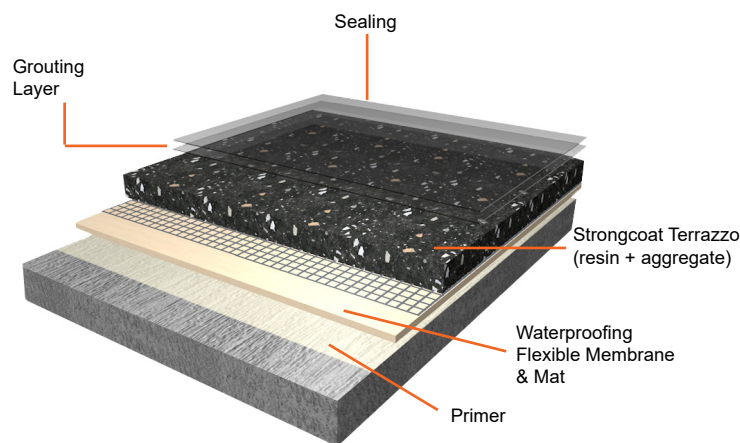
METHOD OF USE

SUBSTRATE PREPARATION

The substrate must be clean, dry, even, dense and free from oil, grease, dust and other contaminants. A clean surface will ensure maximum adhesion between the substrate and the system.

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

Place metal divider strips (i.e., aluminium, stainless steel or brass strips) on the substrate as per the required design.



System Thickness 10 mm (8 mm after grinding)

Layer	Product	Consumption
Primer	Strongcoat Primer OR Strongcoat UN101	0.2 kg/m ² 0.35 kg/m ²
Waterproofing Flexible Membrane and Mat (Optional)	Gripdeck Flexcoat 100 DonFiber Mesh	0.4 - 0.5 kg/m ²
Resin Mortar	Strongcoat Terrazzo Resin	17 - 20 kg/ m ² mixed aggregates of choice (at mix ratio of 1: 3.25 - 4)
Grouting Layer	Strongcoat Terrazzo Resin	0.4 kg/m ² (neat resin)
Sealing (According to the desired finish applied in 2 coats)	Monoseal WB - Glossy Cemflow Sealer	0.14 kg/m ² /coat for a glossy finish 0.1 kg/m ² /coat for a matt finish



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PRIMING

Concrete substrates should be primed with Strongcoat Primer or Strongcoat UN101. 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, dress the surface with Antislip Aggregates #2 or #3 at the rate of 0.5 kg/m² and allow to touch dry.

Note: No need to dress the surface with aggregates if "Crack Suppressant Membrane and Mat" were used.

CRACK SUPPRESSANT MEMBRANE AND MAT (OPTIONAL)

MIXING

Gripdeck Flexcoat 100 comprises two components, a resin and a hardener, which are supplied pre-weighted in the correct proportions. Under no circumstances should part mixing be carried out.

The contents of each component should be thoroughly stirred separately to disperse any possible settlement. Taking care to ensure that the bottom and sides are thoroughly scraped, transfer the entire contents of the hardener component into the base component.

Using a power whisk attached to a slow speed electric drill, mix for approximately 3 minutes and until uniform colour and consistency are achieved.

Note: never mix Gripdeck Flexcoat 100 by hand as this could lead to areas of uncured material.

APPLICATION

Once mixed, the material should be immediately applied, ensuring that a continuous coating is obtained. Apply the Gripdeck Flexcoat 100 onto the floor using a brush, roller or squeegee.

Embed the Donfiber Mesh into the wet Gripdeck Flexcoat 100 membrane and firmly press the mat into the wet resin using a flat trowel, metal disc roller or flexible steel coil roller ensuring there is no creasing or air blisters.

Gripdeck Flexcoat 100 may be over-coated as soon as it becomes tack-free within 24 hours.

Once Gripdeck Flexcoat 100 is dry, any protruding fibres or uneven areas should be smoothed out by sanding or grinding.

TECHNICAL PROPERTIES FOR MIXED RESIN @ 25°C, WITHOUT AGGREGATE:

Colour:	Available in different colours
Mixed density:	1.55 ± 0.10 g/cm ³
Solid contents:	100%
Pot life:	50 - 70 min
Compressive strength: BS 6319-2	≥ 70 MPa @ 7 days
Flexural strength: EN 13892-2	≥ 28 MPa @ 7 days
Tensile strength: BS 6319-7	≥ 20 MPa @ 7 days
Bond strength on C25/30 concrete: EN 1542	≥ 2 MPa @ 7 days (concrete failure)
Shore D hardness: ASTM D2240	≥ 80
Water absorption: ASTM D570	≤ 0.2%
Taber abrasion resistance: (1000 g, 1000 cycle) ASTM D4060, weight loss, CS17 wheel	≤ 90 milligram
VOC: ASTM D2369	≤ 20 g/ltr (comply with LEED)

RESIN MORTAR

MIXING RATIO

The recommended mixing ratio for Strongcoat Terrazzo with aggregate is as follows:

3.25 – 4 kg of aggregates to 1 kg of mixed resin.

Given the wide variety of aggregates that can be used and the differences in their shape, size, dust content and absorbency, Strongcoat Terrazzo is supplied as base and hardener packs ONLY.

To be mixed with selected aggregate to achieve special finishing patterns. Consult DCP's Technical Department for further information gradation and size of aggregates.

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MIXING

Pre-stir each component to ensure that all solids and pigments are evenly distributed and eliminate any settlement in the materials.

Transfer the entire contents of the hardener pack into the base container and mix using a jiffy-type mixer attached to a slow running electric drill, mix for approximately 2 minutes.

Transfer the entire contents of the mixed resin container into a Casco or Creteangle-type mixer, ensuring that the bottom and sides are thoroughly scraped. Start the mixer and add the entire contents of the aggregate part. Continue mixing for approximately 2 minutes until a uniform mix is achieved and the aggregates are well coated with the resin mix.

Important: Never mix by hand as this could lead to areas of uncured material.

Note: It is recommended to pre-condition the unmixed material to least 24 hours at temperatures between 20 and 25°C to maintain the best results.

PLACING

Once mixing is complete, transfer the Strongcoat Terrazzo to the surface and start spreading and compacting the mortar to the desired thickness using a steel trowel so that the top of mortar is approximately levelled with the top of the divider strips.

GRINDING

After 24 hours (at 23° C ambient temperature), a mechanical grinding machine should be used to smooth the surface of Strongcoat Terrazzo so that the layer is levelled and the aggregate becomes apparent.

This step is repeated 3 - 4 times in slow circular motion until a smooth surface is achieved. Once dry grinding is finished, a vacuum cleaning machine should be used to remove all loose and dust particles.

GROUTING

After dry grinding, any pinholes should be prepared by filling them using a small quantity of Strongcoat Terrazzo neat resin.

Apply Strongcoat Terrazzo neat resin over the entire surface at a rate of 0.4 kg/m² with a hand trowel, ensuring it fills all pinholes, pits, and voids.

POLISHING

The polishing step should be done by wet grinding the layer; this will enhance the finishing of Strongcoat Terrazzo and transfer the layer from a matt finish into a shiny one. As a final step, the surface is cleaned by removing the slurry caused by wet grinding, clean water can be used to rinse the surface, and all slurry should be removed before sealing the surface.

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 Strongcoat Terrazzo. (See related datasheets for further details).

Contact DCP's Technical Department for further information about the application of Strongcoat Terrazzo.

REMARKS

- » Strongcoat Terrazzo should not be applied on surfaces known to suffer from damp rising.
- » Strongcoat Terrazzo should not be applied at temperatures below 10°C or where concrete relative humidity exceeds 75%.
- » The substrate must contain no more than 5% moisture and have an effective damp-proof membrane.

CLEANING

Remove Strongcoat Terrazzo by DCP Solvent prior setting.

PACKAGING

Strongcoat Terrazzo is available in 18 kg coloured resin packs.



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THICKNESS RANGE

Between 6 - 10 mm, depending on aggregate size and shape.

CONSUMPTION

To achieve a total thickness of 10.0 mm (8 mm after grinding), mix 3.25 - 4 kg/m² Strongcoat Terrazzo Resin with 13 - 16 kg/m² aggregates of choice (at a mixing ratio of 1 kg resin to 3.25 - 4 kg aggregates).

Actual coverage and consumption will depend on the mixing proportions, aggregate size and shape, as well as the substrate regularity.

STORAGE

Strongcoat Terrazzo has a shelf life of 12 months from date of manufacture if stored at temperatures between 5°C and 35°C.

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

CAUTIONS

HEALTH AND SAFETY

Strongcoat 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.

FIRE

Strongcoat Terrazzo, Strongcoat Primer and Strongcoat UN101 are nonflammable.

DCP solvent is flammable. Ensure adequate ventilation. Do not use near a naked flame and do not smoke during use.

Flash Point:

DCP Solvent: 37°C.

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.