

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 and 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.

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)

Priming

Concrete substrates should be primed with Strongcoat Primer. 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/#3 at the rate of 0.5 kg/m² and allow to touch dry.



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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 and Finishing

Place metal divider strips (i.e. aluminium, stainless steel or brass strips) on the treated substrate as per the required design. Once mixing is complete, transfer the Strongcoat Terrazzo to the primed 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.

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 cleaner should be used to remove all loose and dust particles.

After dry grinding, any pinholes should be prepared by filling them using a small quantity of Strongcoat Terrazzo neat resin. Afterwards, the polishing step should be done by wet grinding the layer; this will enhance the finishing of the epoxy 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 layer.

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

Sealing

To maintain the best results, an aliphatic PU clear coat; Repcoat P Clear or high solids acrylic clear coat; Monoseal, should be used to provide a glossy finish and enhance the appearance as well as the chemical and physical properties of Strongcoat Terrazzo. (See related datasheets for further details).

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%.

Cleaning

Remove Strongcoat Terrazzo by DCP Solvent prior setting.

Packaging

Strongcoat Terrazzo is available in 90 kg packs (18 kg coloured resin + 72 kg aggregate).

Repcoat P Clear is available in 5 and 20 litre packs.

Monoseal clear is available in 5 and 25 litre packs.

Mixing ratio

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

Aggregate: Mixed resin = 4:1 (by weight).

In special cases and based on the requirements of the client, Strongcoat Terrazzo can be supplied as base and hardener packs only to be mixed with selected aggregate to achieve special finishing patterns.

Given the wide variety of aggregates that can be used and the differences in their shape, size, dust content and absorbency, it is improbable to produce a single specific mix design that can cover all the variables as mentioned above.



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Thickness range

Between 5 - 10 mm, depending on aggregate size and shape.

Coverage

Approximately 9.0 m²/kit @ 5.0 mm thick, actual coverage depends 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, contact DCP Technical Department for advise.

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 and Strongcoat Primer are nonflammable.

Repcoat P, Monoseal and DCP Solvent are flammable materials and should not be used near a naked flame.

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- ▲ Surface treatments
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- ▲ Concrete repair.
- ▲ Flooring systems.
- ▲ Protective coatings.
- ▲ Sealants.
- ▲ Waterproofing.
- ▲ Adhesives.
- ▲ Tile adhesives and grouts.
- ▲ Building products.
- ▲ Structural strengthening.

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Note:

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