Strongcoat SL1

1 – 2 mm thick epoxy self leveling topping for floor surfaces (Formerly known as Strongcoat TC1)

DESCRIPTION

Strongcoat SL1 is a solvent-free, epoxy-based, self-leveling topping that provides floor surfaces with a seamless, hygienic, and visually appealing finish. It is applied by trowel to horizontal surfaces and offers excellent durability against both pedestrian and vehicular traffic.

Strongcoat SL1 also demonstrates outstanding resistance to many chemicals commonly found in industrial environments. Available in a variety of colours, it cures to form a hard-wearing, long-lasting surface.

APPLICATIONS

Strongcoat SL1 is used to provide a hygienic, dense and hard wearing surface for concrete floors for a wide range of applications such as:

- Aircraft hangars.
- Hospitals.
- Pharmaceutical factories.
- Showrooms.
- Laboratories.
- Medium or light duty industrial plants.
- Kitchens.

ADVANTAGES

- Provides hygienic floor.
- Hard wearing system.
- Solvent free.
- Available in a wide range of attractive colours.
- Resistant to a wide range of chemicals.

STANDARDS

Strongcoat SL1 complies with EN 13813, SR-B1.5-AR0.5-IR2.9.

TECHNICAL PROPERTIES @ 25°C:	
Mixed density:	1.6 ± 0.1 g/cm³
Pot life:	50 - 70 min
Foot traffic:	After 24 hr
Vehicular traffic:	After 48 hr
Bond strength: BS EN 13892-8	> 1.5 MPa (concrete failure)
Maximum wear depth: BS EN 13892-4	0.05 mm
Taber abrasion resistance: (1000 g, 1000 cycle) ASTM D4060, weight loss H22 wheel CS17 wheel	 530 milligram 60 milligram
Impact resistance: ISO 6272-2	> 2.9 N.m
Compressive strength: BS 6319-2	> 80 MPa @ 7 days
Flexural strength: BS 6319-3	> 30 MPa @ 7 days
Tensile strength: BS 6319-7	> 15 MPa @ 7 days
Shore D hardness: ASTM D2240	> 80 @ 7 days
VOC: ASTM D2369	< 40 gr/ltr (comply with LEED)

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 coating.

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Concrete floors must have a minimum compressive strength of 25 MPa and a maximum concrete relative humidity of 80% (max. moisture content of 4%). Relative humidity can be measured by using hygrometers.

Concrete relative humidity should be less than 80% for concrete of 28 days old or more.

SURFACE PREPARATION

Ensure that all pinholes and grooves in the prepared substrate are properly filled using suitable epoxy putty materials prior to the application of subsequent layers. This is crucial to prevent pinhole reflection and to achieve a smooth, seamless finish.

Unsound layers and contaminated concrete surfaces must be prepared using mechanical surface removing equipment. In case of areas deeply contaminated by oil or grease, such areas should be treated with hot compressed air.

PRIMING

Concrete substrates should be primed with Strongcoat Primer or Strongcoat Primer S. The primer should be allowed to cure for 24 hours. Use lambs wool roller to apply the primer. More than one coat may be required for highly porous or textured surfaces

MIXING

Prior to mixing, stir the individual components of Strongcoat SL1, taking care to ensure that the bottom and sides are thoroughly scraped. Transfer the entire contents of the Base and Hardener into a separate mixing container.

Using a Jiffy-type mixer attached to a slow-running electrical drill, mix for approximately 2 minutes. Once mixed, transfer the entire contents into a Casco or Creteangle-type mixer, taking care to ensure that the bottom and sides are thoroughly scraped.

Start the mixer and transfer to it the entire contents of the Strongcoat SL1 Filler container, taking care to ensure that these are completely dry and lump-free. Continue mixing for approximately 2 minutes.

Notes:

- *Never mix Strongcoat SL1 by hand as this could lead to areas of uncured material.*
- *In certain cases the Base of the product can be supplied uncoloured and needs the addition of a colour pack. In such cases, mix the components of the Base, Hardener and colour pack using same procedure above, then add the filler component accordingly.*

OCCASIONAL SPILLAGE

Chemical Resistance after full cure (7 days @ 25°C), ASTM D1308 (spot test @ 1 hr)

Organic Acids	
Lactic Acid 10%	RS + SS
Oleic Acid sat.	RS
Citric Acid 25%	RS
Inorganic Bases	
Sodium Hydroxide 50%	R
Ammonia Solution 10%	R
Potassium Hydroxide 50%	R
Aqueous Solutions	
Sodium Chloride sat	R
Tap Water	R
Chlorinated Water	R
Dead Sea Water	R
Solvents	
White Spirit	R
Xylene	R
Toluene	R
Acetone	R
Ethanol	R
Ethyl Acetate	R
N Propanol	R
Methoxy Propanol	R
Oils & Fuels	
Brake Fluid	RS
Engine Oil	R
Diesel	R
Kerosene	R
Detergents & Soaps	R
Inorganic Acids	
Sulphuric Acid 25%	RS
Phosphoric Acid 20%	RS
Hydrochloric Acid 10%	RS
Nitric Acid 10%	R

R: Resistant
RS: Resistant with slight discolouration
SS: Slight softening

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APPLICATION (SMOOTH FINISH)

Once mixing is complete, transfer the Strongcoat SL1 to the prime surface at the required thickness by rack. Care should be taken when joining the lanes, to achieve a smooth connection. It is recommended to mask off edges with tape which is then removed while Strongcoat SL1 is still wet.

FINISHING

While still wet, thoroughly spike roll the Strongcoat SL1.

APPLICATION (ANTISLIP FINISH)

Once mixing is complete, transfer the Strongcoat SL1 to the prime surface at the required thickness by rack. While applied Strongcoat SL1 still wet, fully blind with the chosen grade of Antislip Aggregates (Slip resistant aggregate No.2 or 3). Once cured, all excess aggregates shall be removed before applying further top coats.
Apply one or two coats of Repcoat P at approximately 0.15 - 0.20 ltr/m^2/coat.

REMARKS

- Strongcoat SL1 should not be applied on to surfaces known to suffer from damp rising.
- Strongcoat SL1 should not be applied at temperatures below 10°C or where ambient relative humidity exceeds 80%.
- In lighter colour shades, the product may experience accelerated yellowing over time, even indoors, particularly when exposed to heat from strong lighting (e.g., industrial discharge lamps, fluorescent lamps, metal halide or mercury vapour lamps).

CLEANING

Strongcoat SL1 can be removed by DCP Solvent prior setting.

PACKAGING

Strongcoat SL1 is available in 17 kg packs (10.5 litre).

THICKNESS RANGE

1.6 kg/m^2 to achieve 1000 microns dry film thickness.
2.4 kg/m^2 to achieve 1500 microns dry film thickness.
3.2 kg/m^2 to achieve 2000 microns dry film thickness.

SYSTEM APPLICATION AND COVERAGE

A) Typical smooth finish:
Refer to the Strongcoat Primer Range TDS for coverages and thicknesses.
Strongcoat SL1: 1000 - 2000 microns (DFT) per layer.

B) Typical Antislip Finish (indoor and outdoor):
Refer to the Strongcoat Primer Range TDS for coverages and thicknesses.
Strongcoat SL1: 1000 - 2000 microns (DFT) per layer.
Antislip Aggregate No.2 or 3: 1 - 3 kg/m^2.
Repcoat P: 1 - 2 coats @ 75 - 100 microns (DFT) per coat.

STORAGE

Strongcoat SL1 and primer have a shelf life of 12 months from date of manufacture if stored at temperatures between 10°C and 35°C.

The material may form crystals when stored at temperatures below 10°C, in such cases, conditioning for 1 - 2 days at temperatures between 30 - 35°C with simple manual mixing is needed before application.

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

CAUTIONS

HEALTH AND SAFETY

Strongcoat SL1 and its primer 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 SL1 is nonflammable.

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