

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 cosmetically attractive finish. Strongcoat SL1 is applied by trowel to horizontal surfaces and has very good durability towards pedestrian and vehicular traffic.

It also has very good resistance to many of the chemicals commonly found in an industrial environment (consult our Technical Department for further details).

It can be supplied in a variety of colours (consult our Sales Department for details). Strongcoat SL1 cures to a durable, hard wearing 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.
- » Resist a wide range of chemicals, consult DCP technical department for more details.

STANDARDS

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

TECHNICAL PROPERTIES @ 25°C:

Compressive strength: BS 6319, Part 2	> 80 MPa @ 7 days
Tensile strength: BS 6319, Part 7	> 15 MPa @ 7 days
Flexural strength: BS 6319, Part 3	> 30 MPa @ 7 days
Shore D hardness: ASTM D2240	> 80 @ 7 days
Foot traffic:	After 24 hr
Vehicular traffic:	After 48 hr
Bond strength: BS EN 13892-8	> 1.5 MPa (concrete failure)
Pot life:	50 - 70 min
Mixed density:	1.6 ± 0.1 g/cm ³
Taber abrasion resistance: (1000 g, 1000 cycle) ASTM D4060, weight loss	
H22 wheel	530 milligram
CS17 wheel	60 milligram
Maximum wear depth: BS EN 13892-4	0.05 mm
Impact resistance: ISO 6272-2	> 2.9 N.m
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 N/mm² 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

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 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.*

OCCASSIONAL 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 discoloration

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/m²/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%.

CLEANING

Strongcoat SL1 can be removed by DCP solvent prior setting.

PACKAGING

Strongcoat SL1 is available in 17 kg packs (10.5 litre).
Strongcoat Primer S is available in 5 kg packs.

THICKNESS RANGE

Strongcoat Primer S:
0.2 kg/m² to achieve 175 microns dry film thickness.

Strongcoat SL1:
1.6 kg/m² to achieve 1000 microns dry film thickness.
2.4 kg/m² to achieve 1500 microns dry film thickness.
3.2 kg/m² to achieve 2000 microns dry film thickness.

SYSTEM APPLICATION AND COVERAGE

A) Typical smooth finish:

Strongcoat Primer S: 1 coat @ 175 microns (DFT).
Strongcoat SL1: 1000 - 2000 microns (DFT) per layer.

B) Typical Antislip Finish (indoor and outdoor):

Strongcoat Primer S: 1 coat @ 175 microns (DFT).
Strongcoat SL1: 1000 - 2000 microns (DFT) per layer.
Antislip Aggregate No.2 or 3: 1 - 3 kg/m².
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 advise.

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

DCP solvent is flammable material and should not be used near a naked flame. Do not smoke near DCP solvent.

Flash Point: of Strongcoat SL1 and its primer are above 50°C.



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- » 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.