Strongcoat PU Screed

Aliphatic polyurethane binder for creating stone carpet systems

DESCRIPTION

Strongcoat PU Screed is a two-component, high solids, solvent-based polyurethane binder designed for creating stone carpet systems. The system provides a wide variety of finishes which are dependent on the type, colour and size of the used aggregates along with their mixing proportion with the resin. The system can be applied at 5 - 50 mm thickness based on the size of aggregate used.

APPLICATIONS

Strongcoat PU Screed is used to provide a natural-looking stone carpet system with good chemical resistance and for a wide range of applications:

- Public footpaths.
- Driveways and car parks.
- Pool surrounds.
- Garden paths.
- Decorative landscaping.
- Chemical plants.
- General industrial and marine applications.

ADVANTAGES

- High solid content.
- Gloss topcoat with unlimited recoatability.
- Clear colour, enhances the natural colour of aggregate used.
- Excellent adhesion strength.
- Natural appearance with excellent colour and gloss retention.
- Easy to apply and clean.
- UV resistant.
- Resistant to a wide range of chemicals.

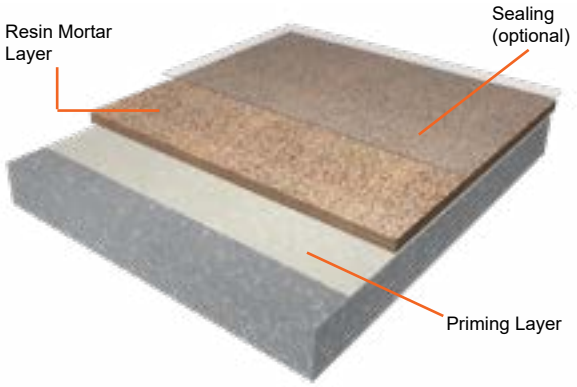
METHOD OF USE

SUBSTRATE PREPARATION

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

Concrete floors should be at least 28 days old and must have a minimum compressive strength of 25 MPa and a maximum concrete relative humidity of 75% (max. moisture content of 4%). Relative humidity can be measured by using hygrometers.

Unsound layers and contaminated concrete surfaces must be prepared using mechanical surface removal equipment. Smooth surfaces should be roughened by light grinding or other mechanical means. In areas that are deeply contaminated with oil or grease, treatment with hot compressed air should be carried out.



Layer	Product	Consumption		
		Silica Sand		Gravel
		1 - 2 mm	1 - 3 mm	3 - 6 mm
Resin Mortar Layer	**Strongcoat PU Screed** (neat resin mixed with corresponding aggregate)	8.75 kg/m²	11.25 kg/m²	15 kg/m²
Sealing (optional)	**Strongcoat PU Screed** (neat resin)	0.5 kg/m²		

The table above provides guidance on the consumption rates for all layers based on different aggregate sizes, assuming a mixing ratio of 1:10 resin to aggregate. Actual consumption may vary depending on the size, shape and porosity of the aggregates used.

PRIMING

If required, apply Strongcoat Primer onto the prepared substrate using a brush or a short-hair lamb's wool roller. Spread the primer evenly at the recommended coverage rate, ensuring no ponding occurs on the surface.

For highly porous substrates, a second coat may be necessary.

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RESIN MORTAR LAYER

MIXING

Stir each component thoroughly before use. Transfer the entire contents of the hardener pack into the base container. Using a Jiffy-type mixer attached to a slow running electric drill, mix thoroughly for approximately 2 minutes. Ensure a homogeneous mixture before proceeding.

Pour the mixed resin into a Casco or Creteangle-type mixer. Start the mixer and gradually add the specified amount of aggregates. Continue to mix for approximately 3 minutes, until the aggregates are fully coated and the mixture is uniform.

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

APPLICATION

Once mixing is complete, transfer Strongcoat PU Screed and aggregate mix to the primed surface while still tacky and using a straight-edged steel trowel or a screed laying box, apply it evenly.

After application and depending on the aggregate size and shape and the needed surface finish, a hand mechanical trowel can be used to provide a more compacted and levelled surface.

Note: Excess compacting will affect the permeability of the screed.

SEALING

For sealing, apply Strongcoat PU Screed (neat resin). The first coat should be applied to achieve a continuous, uniform film. Always apply in thin coats and maintain a wet edge.

Two coats are recommended for complete protection. For highly porous surfaces, the second coat (if required) should be applied within the minimum overcoating time to ensure maximum adhesion between coats.

Strongcoat PU Screed can be applied by brush, roller or airless spray machine.

Notes:

- *Do not allow foot traffic for 24 hours after final application.*
- *Applying a sealer may reduce slip resistance, especially under wet conditions, depending on the size and shape of the aggregates used. Sealing will also reduce the permeable properties of the system.*

TECHNICAL PROPERTIES FOR THE NEAT MIXED RESIN (WITHOUT AGGREGATE) @ 25°C:	
Appearance:	Clear liquid
Mixed density:	1.1 ± 0.1 g/cm³
Solid content:	75 ± 5% by weight
Pot life:	1 - 3 hr
Overcoating time	2 - 4 hr
Dry film thickness :	50 - 75 microns per coat
VOC:	≤ 350 g/ltr

REMARKS

- Strongcoat PU Screed should not be applied onto surfaces which are known to suffer from damp rising.
- Strongcoat PU Screed should not be applied at temperatures below 10°C or where ambient relative humidity exceeds 80%.
- When applying by conventional spray, use adequate air pressure and volume to ensure proper atomization.

CLEANING

Tools can be cleaned using DCP Solvent prior to setting.

PACKAGING

Strongcoat PU Screed (neat resin) is available in 25 litre packs.

MIXING RATIO

The mixing ratio of resin to aggregate depends on the size, shape and porosity of the aggregate. As a general starting point, the recommended mix ratio is:

On Strongcoat Primer (while still tacky):
Resin (base and hardener): 1.0 - 1.2 kg.
Aggregate: 20 kg.

On unprimed surfaces or dried/non-tacky Strongcoat Primer:
Resin (base and hardener): 1.5 - 2.0 kg.
Aggregate: 20 kg.

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THICKNESS RANGE

5 - 50 mm, depending on aggregate size and shape.

COVERAGE

The actual coverage rate of Strongcoat PU Screed depends on the size of the aggregate and the mixing proportion between the resin and aggregate. However, the approximate coverage rate of the mixed product is 5.5 m² per 55 kg mixed screed at 5 mm thickness.

STORAGE

Strongcoat PU Screed has a shelf life of 12 months from date of manufacturing if stored in dry conditions at a temperature of 25°C in original unopened packs.

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

CAUTIONS

HEALTH AND SAFETY

Strongcoat PU Screed should not come in contact with skin or eyes. Goggles and gloves should be used.
In case of accidental contact with eyes, immediately flush with plenty of water for at least 10 minutes and seek medical advice if necessary.

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

FIRE

Strongcoat PU Screed is flammable.

Strongcoat PU Screed

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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.