

Strongcoat EP Screed

Two-component epoxy binder for creating stone carpet systems



DESCRIPTION

Strongcoat EP Screed is a two-component, solvent-free, epoxy binder with water permeability properties 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 EP Screed is used to provide an extremely hard-wearing natural looking stone carpet system for a wide range of applications such as:

- » Public footpaths.
- » Driveways and car parks.
- » Pool surrounds.
- » Garden paths.
- » Decorative landscaping.
- » Shopping centres.

ADVANTAGES

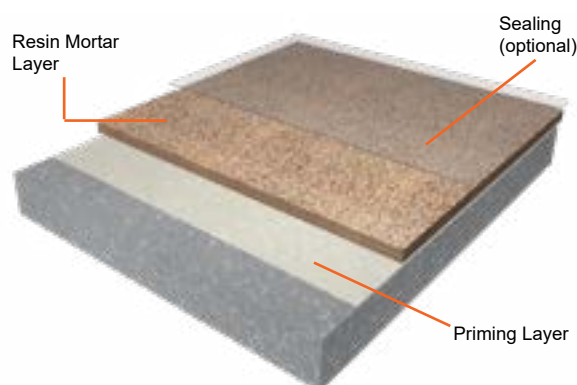
- » Hard-wearing system.
- » Solvent-free.
- » Non-slip.
- » Permeable.
- » Natural appearance.
- » Low maintenance.
- » Enhances the natural colour of aggregate used.
- » Resistant to a wide range of chemicals.
- » May be used for outdoor applications. Strongcoat EP Screed may yellow under UV exposure; however, this may be minimal depending on the colour of the aggregates used.

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 MPa and a maximum concrete relative humidity of 75% (max. moisture content of 4%). Relative humidity can be measured by using hygrometers.



Layer	Product	Consumption		
		Silica Sand		Gravel
		1 - 2 mm	1 - 3 mm	3 - 6 mm
Priming Layer	Strongcoat EP Screed (neat resin)	0.2 kg/m ²		
	Antislip Aggregates #2	0.3 kg/m ²		
Resin Mortar Layer	Strongcoat EP Screed (neat resin mixed with corresponding aggregate)	7.5 kg/m ²	11.25 - 12.5 kg/m ²	13.75 - 15 kg/m ²
Sealing (optional)	Strongcoat EP Screed (neat resin)	1 kg/m ²	0.7 kg/m ²	0.5 kg/m ²
	Repcoat PX	0.25 kg/m ²	0.325 kg/m ²	0.4 kg/m ²
	Cemflow Sealer	0.18 kg/m ²	0.39 kg/m ²	0.45 kg/m ²

The table above provides guidance on the consumption rates for all layers based on different aggregate sizes, assuming a mixing ratio of 1:14 resin to aggregate. Actual consumption may vary depending on the size, shape and porosity of the aggregates used.

DCP Saudi Co.

Sulay, Industrial Area, Istanbul St., Riyadh
Industrial City 3, Jeddah
Saudi Arabia
info.saudi@dcp-int.com
www.dcp-int.com

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The relative humidity of the concrete should be less than 75% for concrete that is 28 days old or older. For low water-to-cement ratio concrete floors, a hygrometer reading of 75% or less can often be achieved before the concrete reaches 28 days of age.

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

PRIMING

Prepared substrates should be primed using the mixed resin only, without adding aggregates. Apply the primer with a lamb's wool roller at a coverage rate of 0.2 kg/m².

Work the primer thoroughly into the concrete surface. While it is still wet, broadcast the chosen aggregate at a rate of 0.2 – 0.5 kg/m². Allow the primer to dry before proceeding. This step improves both the spreading and the application of the screed mix.

RESIN MORTAR LAYER

MIXING

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 mixture is uniform.

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

TECHNICAL PROPERTIES FOR THE NEAT MIXED RESIN (WITHOUT AGGREGATE) @ 25°C:

Appearance:	Yellowish clear liquid
Mixed density:	1.1 ± 0.1 g/cm ³
Pot life:	30 - 50 min
Compressive strength: BS 6319-2	≥ 60 MPa @ 7 days
VOC: ASTM D2369	≤ 20 g/ltr (comply with LEED)

APPLICATION

Once mixing is complete, transfer Strongcoat EP Screed to the primed surface 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.

REMARKS

- » Strongcoat EP Screed should not be applied onto surfaces which are known to suffer from damp rising.
- » Strongcoat EP Screed should not be applied at temperatures below 10°C or where ambient relative humidity exceeds 80%.

SEALING

If a sealed surface is required, the following seal coat options are recommended:

Indoor Applications

Use Strongcoat EP Screed neat resin. After thorough mixing, pour the product onto the floor and spread evenly in 1 – 2 coats using a roller. Ensure that all pores on the coating surface are completely sealed.

Outdoor Applications

In order to reduce the amount of sealer required, it is optional to apply Strongcoat EP Screed resin prior to sealing. This helps to minimise porosity and ensure a more uniform surface.

Apply Repcoat PX Clear using a brush, roller, or airless spray machine at a coverage rate of 0.10 – 0.15 litre/m² per coat. For further details, please refer to the Repcoat PX Clear datasheet.

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Alternatively, apply Cemflow Sealer, a two-component water-dispersed polyurethane sealer designed to protect and seal concrete and screed surfaces. It provides a durable, abrasion-resistant, and hygienic finish with excellent UV stability. Cemflow Sealer is applied by roller or spray to produce an easy-to-clean, non-yellowing surface that resists chemicals, stains, and wear.

For further details, please refer to the Cemflow Sealer datasheet.

Notes:

- » *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.*
- » *While Repcoat PX Clear and Cemflow Sealer provide a protective, UV-resistant seal, Strongcoat EP Screed is an epoxy-based system and may still exhibit yellowing when exposed to UV light.*

CLEANING

Tools can be cleaned using DCP Solvent prior to setting.

PACKAGING

Strongcoat EP Screed (neat resin) is available in 5 kg 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:

Resin (base and hardener): 1 kg.
Aggregate: 10 - 20 kg.

THICKNESS RANGE

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

COVERAGE

The actual coverage rate of Strongcoat EP 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 8.25 kg/m² at 5 mm thickness

STORAGE

Strongcoat EP 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 EP 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 EP Screed is nonflammable.

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Note:

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