Heavy duty resin bound permeable screed system



#### Description

Strongcoat EP Screed is a three component, solvent-free epoxy based resin bound aggregate surface system with water permeability properties.

The system provides a wide variety of finishes which are dependent on the type, color and size of the used aggregates along with their 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 floors for a wide range of applications such as:

- ▲ Public footpaths.
- Driveways and car parks.
- ▲ Pool surrounds.
- ▲ Garden paths.
- ▲ Decorative landscaping.

### **Advantages**

- ▲ Hard wearing system.
- ▲ Solvent free.
- ▲ Non-slip.
- ▲ Permeable.
- ▲ Natural appearance.
- ▲ Low maintenance.
- ▲ UV resistant when used with appropriate DCP's sealer.
- ▲ Enhances the natural color of aggregate used.
- A Resistant to a wide range of chemicals, consult with DCP technical department for more details.

#### Method of Us

#### 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 the neat mixed resin (without aggregate) @ 25°C:

Appearance: Yellowish clear liquid

Mixed density:  $1.1 \pm 0.1 \text{ g/cm}^3$ 

Pot life: 30 - 50 min

Compressive strength:

BS 6319, part 2

≥ 60 MPa @ 7 days

VOC: ≤ 20 g/ltr

ASTM D2369 (Comply with LEED)

Concrete relative humidity should be less than 75% for concrete of 28 days old or more, for low W/C ratio concrete floors, 75% hygrometer reading or less can be achieved before 28 days age.

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**

Prepared substrates should be primed using the mixed resin part only without aggregate. Use lamb wool roller to apply the primer at a coverage rate of 5 - 6 m<sup>2</sup>/kg.

Work the primer well into the surface of the concrete and whilst it is wet, dress the surface with aggregate to be used at a rate of 0.2 - 0.5 kg/m<sup>2</sup> and allow to dry, this will help in the spreading and application of the screed mix.

The primer should be overcoated within 12 - 24 hours with the floor screed.

#### Mixing

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.

Start the mixer and add the entire contents of the aggregate part. Continue mixing for approximately 3 minutes until a uniform mix is achieved and the aggregates are well-coated with the resin mix.

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

#### **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 on to 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

To provide a sealed and UV stable surface for outdoor areas, Strongcoat EP Screed should be overcoated with Repcoat PX Clear which is a two component aliphatic polyurethane clear coat.

Repcoat PX Clear should be applied by brush, roller or airless spray machine at a coverage rate of 0.10 - 0.15 litre/m² per coat. For more information, refer to Repcoat PX datasheet or consult DCP's Technical Department.

Note: The application of a sealer can impair the slip resistance of the floor; based on size and shape of aggregates used, when subject to wet conditions. Sealer will also impair permeable properties of the system.

#### Cleaning

Strongcoat EP Screed and Repcoat PX Clear can be cleaned by using DCP solvent prior setting.

#### **Packaging**

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

Repcoat PX clear is available in 20 and 25 litre packs.

#### Mixing ratio

The mixing ratio for the resin mix with the aggregate is highly dependent on the aggregate size and shape, a recommended start-up mix ratio is as follows:

Resin mix "base and hardener" 5 kg: Aggregate 50 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 in range of 5.5 m<sup>2</sup> per 55 kg mixed screed at 5 mm thickness.

#### Storage

Strongcoat EP Screed and Repcoat PX Clear have 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, DCP Technical Department should be contacted for advice.

#### **Cautions**

#### Health and Safety

Strongcoat EP Screed and Repcoat PX Clear 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 in non-flammable Repcoat PX Clear and DCP Solvent are flammable.

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