Method Statement

Ref. #: DCP00/05-0129-A-2023

Strongcoat PU Screed

(Aliphatic polyurethane resin bound screed system)

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Section A : General Comments

General Notes:

The information below is a detailed overview for the application of DCP's **Strongcoat PU Screed** flooring system and should be read in conjunction with the relevant technical data sheet prior to application. All DCP Products should be applied by experienced specialist contractors.

All the points below assume correct preparation of the relevant surface.

High-Temperature Working:

Application temperature ranges from 10°C - 35°C and Substrate's relative humidity must not exceed 80%. It is suggested that, for temperatures above 35°C, the following guidelines are adopted as good working practice:

i. Unmixed materials and equipment should be stored in a cool place and away from direct sunlight.
ii. Avoid application during peak temperature of the day.
iii. Plan for enough materials, tools and labor to ensure continuous applicant process.

Low-Temperature Working:

It is suggested that, for temperatures below 10°C, the following guidelines are adopted as good working practice:

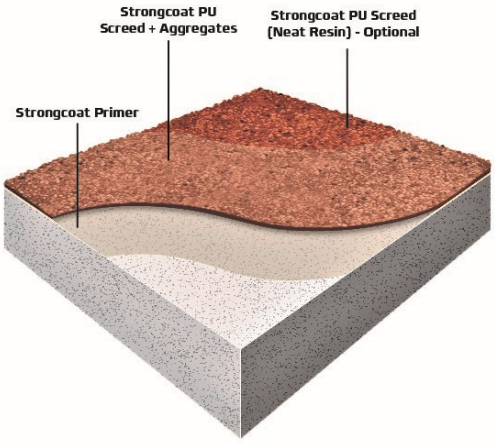
i. Unmixed materials should be stored in a warm.
ii. Cold temperatures will affect the properties of the material.
iii. Avoid applying the water proof coating if the temperature is around 10°C and falling.

System Products:

Primer: **Strongcoat Primer.**

Floor screed: **Strongcoat PU Screed + Aggregates.**

Sealer [optional]: **Strongcoat PU Screed – neat resin.**



Tools and Equipment:

It is suggested that the following list of equipment are adopted as a minimum requirement

Personal protection	:	*Protective overalls*
	:	*Goggles or a face mask*
	:	*Good quality gloves*
	:	*Safety shoes*
	:	*Safety helmet*
Preparation equipment	:	*Concrete vacuum (Fig.1)*
	:	*Grit blasting machine (Fig.2)*
	:	*Brush (Fig.3)*
Application equipment	:	*Jiffy-type mixer attached to a slow running electric drill (Fig.4)*
	:	*Empty bucket (25 litre) (Fig.5)*
	:	*Roller (Fig.6)*
	:	*Straight edge steel trowel (Fig.7)*
	:	*Masking tape (Fig.8)*
	:	*Casco or creteangle type mixer (Fig.9)*
	:	*Screed laying box (Fig.10)*

Fig.1: Concrete vacuum

Fig.2: Grit blasting machine

Fig.3: Brush

Fig.4: Jiffy-type mixer attached to a slow running electric drill

Fig.5: Empty bucket

Fig.6: Roller

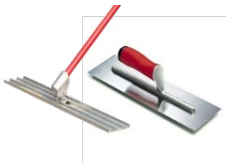


Fig.7: Straight edge steel trowel

Fig.8: Masking tape

Fig.9: Casco or creteangle type mixer

Fig.10: screed laying box

Section B : Application

1.0 Substrate Preparation

1.1 Concrete substrates should be fully cured and achieve a minimum compressive strength of 25 N/mm^2 and a minimum pull-off strength of 1.5 N/mm^2.

1.2 The concrete substrate should be below 75% RH and have less than 4% moisture content, for concrete of 28 days old or more. Alternatively, **Strongcoat DPM** should be applied according to the priming section.

1.3 Perform relative humidity test using in situ devices (i.e. hygrometer) according to ASTM F2170.

1.4 Oil and grease contamination must be completely removed using hot compressed air, torching or any other suitable method which assures the surface is free from any oil traces.

1.5 Unsound layers and contaminated concrete surfaces must be prepared mechanically by (grit blasting, scraping, grinding, milling, etc.).

1.6 Surfaces should be sound and with no irregularities as they can affect the finish of the applied product.

1.7 Smooth surfaces should be roughened by light grinding or other mechanical means**.**

2.0 Priming

2.1 Stir individual components of **Strongcoat Primer** and ensure that bottom and sides are thoroughly scraped.

2.2 Transfer the entire content of the hardener into the base and mix for 2 - 3 minutes using a slow-speed mixer fitted with a suitable paddle.

2.3 Apply one coat of the mixed **Strongcoat Primer** at a rate of (5 m^2/kg per coat), use brush or short hair lambs wool roller for application to the prepared surface.

Note: Avoid any primer ponding on the floor.

2.4 Highly porous surfaces may require two coats of primer, apply a second coat of **Strongcoat Primer** within its overcoating time.

2.5 Allow drying for 12 - 24 hours depending on ambient temperature before applying **Strongcoat PU Screed**.

2.6 **Strongcoat Primer** should be protected from damp, condensation, and water for at least 24 hours.

3.0 Mixing

3.1 Stir individual components of **Strongcoat PU Screed** thoroughly and ensure that the bottom and sides are thoroughly scraped before mixing.

3.2 Use a Jiffy-type mixer attached to a slow-running electrical drill to mix the Base and Hardener components of **Strongcoat PU Screed.**

3.3 Place the mixer as near to the working area as possible.

3.4 Transfer the entire contents of the hardener into the base container and start mixing for approximately 2 minutes until a uniform color and consistency are achieved.

3.5 Once the Hardener and Base have been mixed, start the Casco or Creteangle-type mixer and transfer the entire contents of the aggreagate required gradually to it.

3.6 Ensure that the bottom and sides are thoroughly scraped and transfer all the mixed **Strongcoat PU Screed** material into a Casco or Creteangle-type mixer.

3.7 Continue mixing for approximately 3 minutes until a uniform mix is achieved and the aggregates are well-coated with the resin mix.

Mixing Ratio, when used as a binder with decorative aggregates:

- The mixing ratio for the resin mix with the aggregate is highly dependent on the aggregate size and shape, and absorbency, a recommended start-up mix ratio is as follows:
- Resin mix “base and hardener” 1.0 – 1.2 kg: Aggregate 20 kg when applied onto **Strongcoat Primer**.
- Resin mix “base and hardener” 1.5 – 2.0 kg: Aggregate 20 kg when applied onto not primed surfaces or dried and not tacky **Strongcoat Primer**.

Notes:

- *Never mix by hand as this could lead to areas of uncured material.*
- *Do not mix more material than will be used within its pot life.*
- *Generally, 1 – 6 mm size aggregates can be used with **Strongcoat PU Screed** depending on the screed thickness required.*

4.0 Application

4.1 When used as a binder with decorative aggregates

4.1.1 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.



4.1.2 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.



4.2 When used as a sealer

4.2.1 **Strongcoat PU Screed** can be applied by brush; roller or airless spray machine.

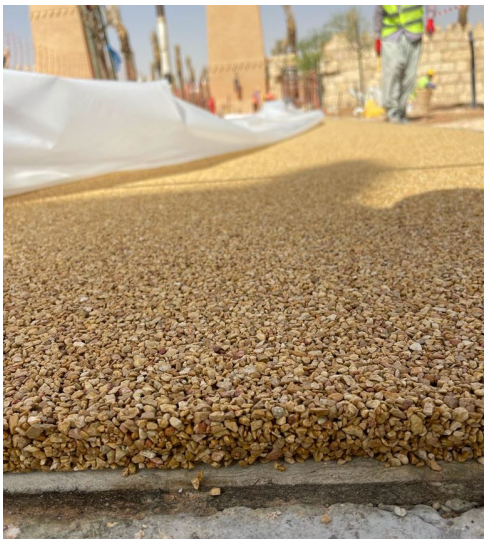
4.2.2 Transfer the first coat of **Strongcoat PU Screed** "neat resin" and apply it to obtain a continuous uniform coating.

4.2.3 Always apply in thin coats and maintain a wet edge.

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

Notes:

- *For best results, pouring and leveling should be done in a continuous process.*
- *Do not allow foot traffic for 24 hours after final application.*
- *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.*



5.0 Cleaning

5.1 All tools used with **Strongcoat PU Screed** should be cleaned with **DCP Solvent** when it is wet, dried **Strongcoat PU Screed** may be removed mechanically.

5.2 **Strongcoat Primer** can be cleaned by **DCP Solvent** prior to setting.

6.0 Limitations

6.1 Working time of resin systems decreases when the ambient temperature rises.

6.2 If the ambient and the substrate temperature is less than 10°C or where ambient relative humidity exceeds 80%., do not apply the material.

6.3 **Strongcoat PU Screed** should not be applied on to surfaces which are known to suffer from damp rising.

6.4 When applying by conventional spray, use adequate air pressure and volume to ensure proper atomization.

Section C : Cautions

Health and safety

Strongcoat PU Screed should not come into contact with skin or eyes. In case of accidental contact with eyes, immediately flush with plenty of water for at least 10 minutes and seek medical advice if necessary. Apply in well-ventilated areas.

Fire:

Strongcoat PU Screed is nonflammable.

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

Section D : Approval and Variations

This method statement is offered by DCP as a 'standard proposal' for the application of **Strongcoat PU Screed**. It remains the responsibility of the Engineer to determine the correct method for any given application. Where alternative methods are to be used, these must be submitted to DCP for approval, in writing, prior to commencement of any work. DCP will not accept responsibility or liability for variations to the above method statement under any other condition.