Method Statement

Ref. #: DCP03/05-0053-B-2025

Griptop HD

(Heavy duty polyurethane floor screed)

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Section A: General Comments

General Notes:

The information below is a detailed overview of the application of DCP's **Griptop HD** 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 the correct preparation of the relevant surface.

High-Temperature Working:

Application temperature ranges from 10°C to 30°C, It is suggested that, for temperatures above 25°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 the peak temperature of the day.
iii. Ensure proper and adequate ventilation.
iv. Do not apply the material in direct sunlight or on very hot substrates.
v. Plan for enough materials, tools, and labor to ensure a 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 area.
ii. Cold temperatures will affect the properties of the material.
iii. Avoid applying the material if the temperature is around 5°C and falling.
iv. Do not apply under rain or snow, and avoid dew points conditions during application.

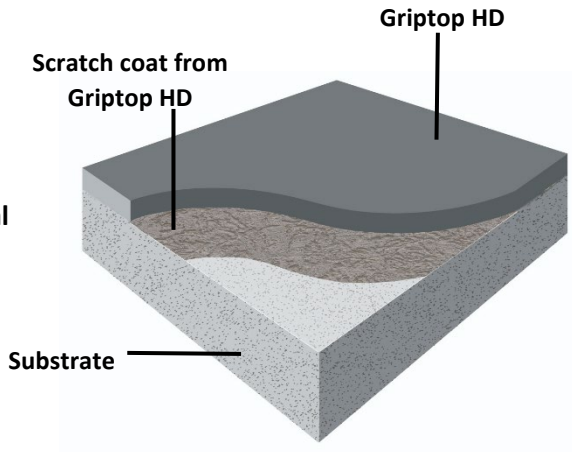
System Products:

Primer: **0.5 – 1.0 mm scratch coat of Griptopo HD**

Sealant: **Flexseal PU425/440**

Polyurethane Topping: **Griptop HD**

Coving materials: **Griptop Cove Pack & Griptop Cove Pack Seal**



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	:	*Stiff wire brush (Fig.1)*
	:	*Soft brush (Fig.2)*
	:	*Air compressor with hose (Fig.3)*
	:	*Saw cutting machine (Fig.4)*
	:	*Grinding machine (Fig.5)*
Mixing equipment	:	*Mixer with Helix type paddle (Fig.6)*
	:	*Creteangle type mixer (Fig.7)*
Application equipment	:	*Wooden battens (Fig.8)*
	:	*Straight edge steel trowel (Fig.9)*
	:	*Nap roller (Fig.10)*
	:	*Duct tape (Fig.11)*

Fig.1: Stiff wire brush

Fig.2: Soft brush

Fig.3: Air compressor with hose

Fig.4: Saw cutting machine

Fig.5: Grinding machine

Fig.6: Mixer with Helix type paddle

Fig.7: Creteangle type mixer

Fig.8: Wooden battens

Fig.9: Straight edge steel trowel

Fig.10 Nap roller

Fig.11: Duct tape

Section B: Application

1.0 Substrate Preparation

1.1 The substrate must be clean, surface dry, and free of laitance. Remove standing water completely by using an industrial vacuum cleaner followed by drying with a hot-air blower, infrared heater, or flame gun.

1.2 **Griptop HD** can be applied directly onto newly poured concrete surfaces that are > 7 days old, as well as old existing concrete with high moisture content without the need for special primers, as long as there is no risk of rising damp or where a functioning Damp-proof membrane is provided underneath the slab.

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

1.4 Existing concrete floors, which require refurbishment, must be prepared to ensure a strong adhesive bond between the flooring system and the existing floor.

1.5 Cementitious substrates must be mechanically prepared so that the large aggregate of the concrete/ screed is exposed.

1.6 Mechanical treatment should be followed by vacuum cleaning to remove dust debris.

1.7 Chemical method such as Acid Etching is not recommended.

Note: if the surface is contaminated by oil or grease, it is recommended to consult DCP Technical Departmentfor advice on a suitable method for removing the contamination.

1.8 All cracks and spalled concrete should be investigated to take the appropriate remedial action. Small irregularities and cracks should be filled with the scratch coat of **Griptop HD**, to ensure an even final finish. Larger holes or irregularities may be filled with Cempatch S or SE.

1.9 All repairs to the substrate must be completed in good time prior to the application of the primer.

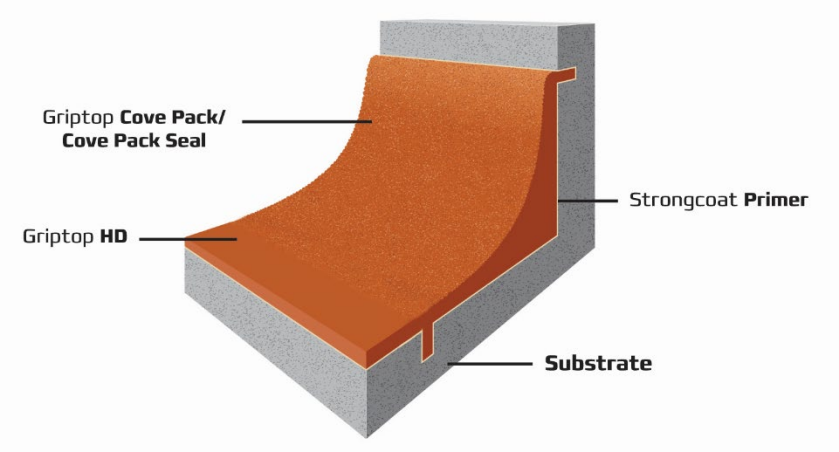
Notes:

- The temperature of the floor must be maintained above 10^{o}C throughout the application and drying of the **Griptop HD.**
- Make sure the substrate temperature is at least 3°C above the dew point during application.

2.0 Coves

2.1 Where the floor meets the wall (in any chemical, manufacturing, or food processing plant as well as healthcare and pharmaceutical facilities) is an area that is considered difficult to clean. The 90-degree corner that runs along the side of a room or around a column is prone to bacterial contamination as a result.

2.2 **Griptop Cove Pack** is ideal for smoothing over this gap, creating a seamless, impermeable transition between the floor and the wall. Easily cleaned, coving leaves dirt, dust, and germs without a place to hide, helping to ensure a hygienic floor that meets every standard.



2.3 Make a saw cut that are twice as wide and twice as deep as the screed thickness. The grooves must be opened at a distance of 5 to 10 cm from coves and walls, running parallel to them.

2.4 Surfaces must be primed with Strongcoat Primer prior to application with **Griptop Cove Pack**. The **Strongcoat Primer** must be allowed to reach a tacky finish, typically 1 - 2 hours at 20°C. More than one coat of primer may be required for highly porous or textured surfaces.

2.5 Mixing of Cove Pack

2.5.1 Ensure that the bottom and sides are thoroughly scraped, and transfer the entire contents of the **Griptop Cove Pack** Part B hardener container into the Part A resin container.

2.5.2 Use a paddle mixer attached to a slow-running electric drill and mix for approximately two minutes.

2.5.3 Transfer the entire mixed contents of the Part A container into a Creteangle type mixer.

2.5.4 Ensure that the bottom and sides are thoroughly scraped.

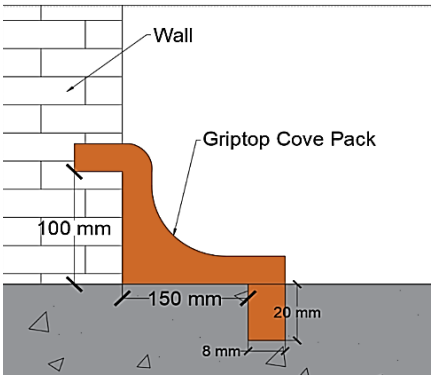
2.5.5 Start the mixer and transfer to it the entire contents of the **Griptop Cove Pack** part C container.

2.5.6 Ensure that the content of part C is completely dry and lump-free.

2.5.7 Continue mixing for approximately 2 minutes.

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

2.6 Once mixing is complete, transfer the **Griptop Cove Pack** to the primed surface and, using a combination of straight-edged and coving trowels, apply it evenly



2.7 **Griptop Cove Pack Seal** Application (this is done after the final flooring system is applied):

2.7.1 Mix the aggregate with resin component thoroughly to form a paste like consistency then add the hardener and continue to mix.

*Note: Never mix **Griptop Cove Pack** Seal by hand as this could lead to areas of uncured material.*

2.7.2 Once mixing is complete, apply immediately by brush or roller approximately 3 – 5 m²/kg per coat to form a smooth, even coat.

2.7.3 Apply second coat, if required, within the overcoating time.

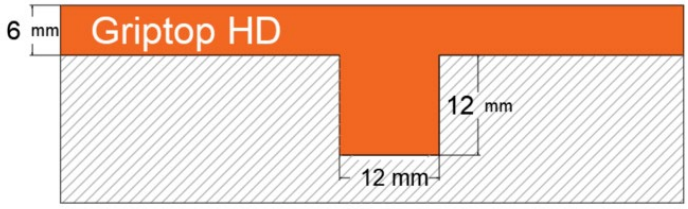
Note: Do not apply too thickly as this can lead to a reduced cure speed and inconsistency of colour and gloss.

3.0 Anchor Grooves

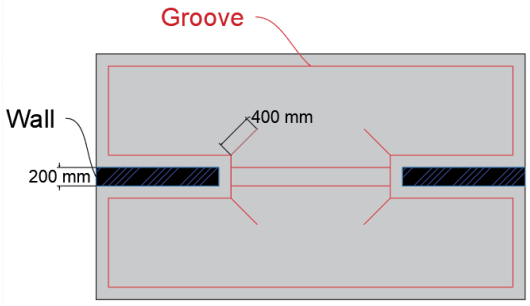
3.1 Groove having a neat square edge should be saw cut around the free edges of the floor, 75 - 150 mm from the coves, walls and running parallel with the walls and adjacent to any door entrance terminations, or any finished edge, i.e along all sides of day work joint, channels, drains or expansion joints to ensure strong bond to the substrate, distribute mechanical and thermal stresses.

3.2 Anchor grooves are required wherever movement is expected including adjacent to stainless steel channels, machine bases, around columns and at any construction joint in the substrate

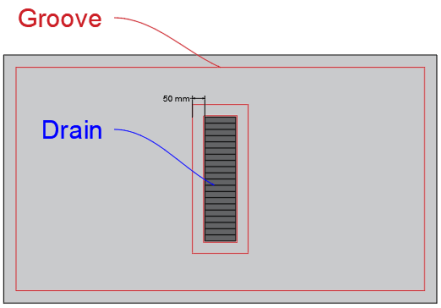
3.3 The groove width and depth dimensions should be twice the thickness of **Griptop HD** layer.
*[i.e 6 mm **Griptop HD** thickness → 12 mm X 12 mm groove].*



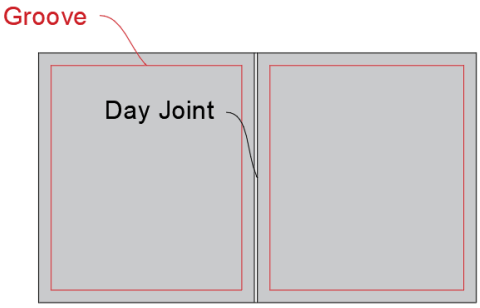
3.4 <u>Door entrance terminations</u>: grooves across the doorway should be cut, the external corners of the doorways should have a 45 degree groove cut coming out from the external corner with a length of twice the width of the wall.
[i.e for 200 mm wide wall →400 mm length groove should extend out into the floor from the external corners].



3.5 <u>Drains:</u> when grooving is taking place around drains, two grooves around drains should be created. The first as close as possible to the drain. The second groove should be cut approximately 50 mm away to perform as a secondary restraint and to prevent liquids getting under **Griptop HD** layer in case of the sealant or drain edges failing.



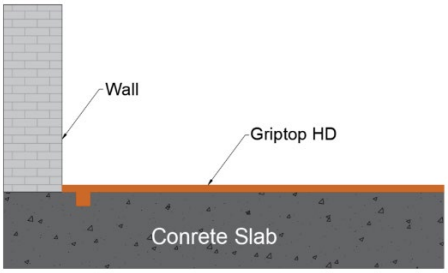
3.6 For small drains especially round ones, square off the groove 25 - 35 mm from the edge of the drain.



3.7 Day joints: in case of large areas, where application can't be done in one day and day joints are necessary, a termination groove on both sides of all day joints should be done and **Griptop HD**.

3.8 For large areas, an anchor groove should be made every 4 - 6 m in either direction.

3.9 Termination at wall



Notes:

- *Clean all the grooves and the joints, vacuum thoroughly.*
- *All dust, loose and friable material must be removed from all joints before application of scratch coat.*

4.0 Scratch Coating (Priming)

4.1 Clean the substrate from any traces of dust or any loose materials.

4.2 Prepared concrete are mostly porous, in this case air displaced from the concrete can rise when **Griptop HD** flooring is put directly onto it, leading to flaws in the completed floor. Therefore, it is advised that the prepared concrete substrate is scratch coated before the installation of **Griptop HD**, especially when the floor's surface quality is crucial for hygienic or aesthetic reasons. Moreover, the scratch coat lessens the "drag" caused by porous concrete, making the subsequent application of **Griptop HD** easier.

4.3 The scratch coat of **Griptop HD** can be prepared by mixing the (Base Pack + Hardener Pack + 1/2 Filler Pack), Follow the mixing procedure shown below to prepare the scratch coat layer of **Griptop HD** and apply it over clean prepared substrate.

4.4 The scratch coat of **Griptop HD** should be applied by trowel in order to achieve a thickness of 0.5 – 1.0 mm..

4.5 The scratch coat should be left for 24 – 48 hours to cure before the application of **Griptop HD**. If the scratch coat is left for more than 48 hours, it is recommended to abrade the coat lightly and apply a fresh scratch coat.

Notes:

- *For surfaces with RH between 75 and 85%, prime with one coat of **Strongcoat DPM** and allow to dry prior to application of the scratch coat.*
- *For surfaces with RH greater than 86%, prime with 2 coats of **Strongcoat DPM** and allow the second coat to dry before priming with scratch coat.*
- *Surfaces may also be primed with **Strongcoat Primer** on which 0.7 – 1.2 mm dry quartz aggregate is scattered at approximately 0.5 kg/m².*

5.0 Mixing

5.1 For three-component system

5.1.1. Prior to mixing, stir the individual components to disperse any settlement.

5.1.2. Transfer the entire contents of the hardener into the resin component.

5.1.3. Using a Jiffy-type mixer attached to a slow running electric drill, or the rotary drum mixer, mix for approximately two minutes until a lump-free consistency is obtained.

Note: It is important to use a slow-speed mixer operating at 300 - 400 rpm to avoid entrapping air and to achieve a homogeneous mixture.

5.1.4. Once mixed, transfer all the combined material into a Casco or Creteangle-type mixer, ensuring that the sides and bottom of the container are thoroughly scraped.

5.1.5. With the mixer running, gradually add the entire contents of the filler component and continue mixing for approximately 2 minutes until a uniform, lump-free mix is obtained.

5.2. For four-component system

5.2.1. Prior to mixing, stir the individual components to disperse any settlement.

5.2.2. Transfer the entire contents of the colour pack into the resin component and mix using a Jiffy type mixer attached to a slow-speed electric drill for approximately 2 to 3 minutes, until a uniform, lump-free consistency is achieved.

5.2.3. Once mixed, add the entire contents of the hardener component to the resin and colour pack mixture.

5.2.4. Continue mixing with a Jiffy-type mixer or a rotary drum mixer for approximately 2 minutes, ensuring a smooth, lump-free consistency.

Note: It is important to use a slow-speed mixer operating at 300 -400 rpm to avoid entrapping air and to achieve a homogeneous mixture.

5.2.5. After mixing the resin, colour pack and hardener, transfer the combined material into a Casco or Creteangle-type mixer, ensuring that the sides and bottom of the container are thoroughly scraped.

5.2.6. With the mixer running, gradually add the entire contents of the filler component and continue mixing for approximately 2 minutes until a uniform, lump free mix is obtained.

Notes:

- *Do not mix part of packs under any condition, as this will change the mixing ratio between the powder and the liquid polymer which will affect the material performance.*
- *Never mix **Griptop HD** by hand as this could lead to areas of uncured material.*
- *Never leave the mixed **Griptop HD** kit to stand for any length of time prior to application as this will considerably shorten its working time.*

6.0 Application

6.1 Each independent area of application should have sufficient materials, equipment and labour.

6.2 Transfer the mixed **Griptop HD** to the primed surface and even out between battens as necessary using a sing a straight-edged steel trowel to give the required thickness (Approximately 2.5 m²/ kit at 6 mm thickness).

6.3 When applying each kit of **Griptop HD**, leave approximately 200 mm of the closest working edge untrowelled as this will help the blending in of the next kit.

*Note: Take care not to excessively trowel the **Griptop HD** as this will lead to burnish marks on its surface.*




6.4 After application, perform light surface rolling in one direction (without back-rolling) to help level the material. Be cautious not to over-roll, as this may increase pinholes.

6.5 Keep a continuous supply of mixed material and place efficiently to maintain a “wet edge” which will reduce the differences between mixes where the material has already started to cure.

Note: Ambient and substrate conditions will limit the extent of the wet edge.

6.6 Allow 24 hours after applying before exposing to vehicle traffic and 7 days before exposing to chemical contamination.

7.0 Drainage Boxes

7.1 In case drainage boxes exist, they should be installed above the concrete finish level with a distance equal to the thickness that **Griptop HD** is to be applied at to allow the application of the Griptop floor to be flush with the drains.

7.2 Two days after application of **Griptop HD** around drainage boxes, at the point of interaction between the drains and the Griptop flooring, saw cut a 4 mm width x 10 mm depth groove through the Griptop flooring then fill with **Flexseal PU440** sealant.

8.0 Free-movement Joints, Expansion Joints & Door Terminations

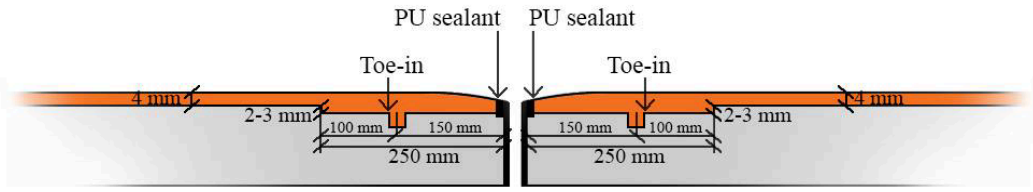
In areas where free-movement joints, expansion joints and door terminations exist, they were flushed with the concrete level, not taking into consideration the application of the Griptop flooring consequently, the following has to be done:

8.1 Grind concrete base at a depth of 2 - 3 mm and a width of 250 mm away from the door terminations, and in both directions for the joints using a scabbing machine to form a toe in.

8.2 Inside the grinded toe in, at a distance of 150 mm away from the joint, saw cut further more at 8 mm width x 10 mm depth, to make an anchor to ensure maximum bond is achieved.

8.3 Lay down **Griptop HD** using the method mentioned earlier, making sure that its level decreases as the joints are reached until it is levelled with the joints.

8.4 After two day, at the point of interaction between the steel plates and the Griptop flooring, saw cut a 4 mm x 8 mm groove through the Griptop flooring then fill with **Flexseal PU440**.



9.0 Cleaning

9.1 Tools and equipment can be cleaned with **DCP Solvent.**

10.0 Limitations

10.1 Do not mix part of packs under any condition, as this will change the mixing ratio between the components, which will affect the material performance.

10.2 Never mix **Griptop HD** by hand as this could lead to areas of uncured material.

10.3 **Griptop HD** has a pot life of approximately 20 – 30 minutes, and it should not be applied at temperatures less than 5°C.

10.4 Never leave the mixed **Griptop HD** kit to stand for any length of time prior to application as this will considerably shorten its working time.

10.5 Ensure good ventilation in the application area to prevent excessive ambient humidity, which could affect the product's performance.

10.6 To minimise colour fading and the effect of efflorescence, protect the installed floor from damp, condensation, and water for 4 to 5 days.

10.7 The substrate and uncured floor must be kept at least 3oC above the dew point to reduce the risk of condensation or blooming on the surface.

10.8 In areas of exposure to direct UV light, **Griptop HD** is susceptible to some yellowing with time, especially with light **Griptop HD** colours. This will not adversely affect the performance of the product.

Section C: Cautions

Health and safety

Refer to the Material Safety Data Sheet prior using Griptop HD.

Section D: Approval and Variations

This method statement is offered by DCP as a 'standard proposal' for the application of **Griptop HD System**. 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.