

Method Statement

Ref. #: DCP00/05-0055-A-2023



Griptop MD

(Medium to heavy duty flow applied polyurethane floor topping)



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Section A : General Comments

General Notes:

The information below is a detailed overview of the application of DCP's Griptop MD 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 25°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.
- 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:





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	: : :	Pin rake (Fig.8) Notched trowel (Fig.9) Spike roller (Fig.10) Rubber spike shoes (Fig.11)	



Fig.1: Stiff wire brush



Fig.5: Grinding machine



Fig.9: Notched trowel

Fig.2: Soft brush

Fig.6: Mixer with Helix type

paddle

Fig.4: Saw cutting

Fig.3: Air compressor with hose





Fig.7: Creteangle type mixer

Fig.8: Pin rake





Fig.11: Rubber spike shoes

Fig.10 Spike roller



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 MD** 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/mm² and be fully cured and achieve a minimum pull-off strength of 1.5 N/mm².
- 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. A surface profile of [CSP 3 – CSP 5] grade according to the International Concrete Repair Institute.



(light shot-blast)

(light scarification)

(Medium shot-blast)

- 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 our technical department for 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 MD**, 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°C throughout the application and drying of the Griptop MD.
- 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 through the concrete floor of 8 mm width and 20 mm depth at distance of 150 mm away from the wall, and another similar cut in the wall at a height of 100 mm from the floor, to ensure a strong bond to the substrate.
- 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 Griptop 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 **<u>Griptop Cove Pack Seal Application</u>** (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 MD** layer. [*i.e* 4 mm **Griptop MD** thickness \rightarrow 8 mm X 8 mm groove].





3.7

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 \rightarrow 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 MD** 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.

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 MD**.



- Groove <
 - Day Joint
- 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 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 MD** 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 MD**, 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 MD** easier.
- 4.3 The scratch coat of Griptop MD should be applied by trowel or notched trowel at a consumption rate of 0.95 1.9 kg/m² (depending on substrate roughness), in order to achieve a thickness of 0.5 1.0 mm.
- 4.4 The scratch coat should be left for 24 48 hours to cure before the application of **Griptop MD**. 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.

5.0 Mixing

- 5.1 **Griptop MD** is supplied in 3 components (Coloured Base, Hardener and filler pack)
- 5.2 The Following are the options for mixing.

Option #1: Creteangle type mixer:

- Add the entire contents of the Griptop MD hardener and resin container to the Creteangle type mixer and mix for 1 minute.
- Add the entire contents of the dry and lump free Griptop MD filler to the mixed material and mix for 2 minutes.





Option #2: Paddle mixer attached to slow speed electric drill:

- Add the entire contents of the Griptop MD hardener and resin container to a separate mixing bucket and mix for 1 minute.
- Add the entire contents of the dry and lump free Griptop MD filler to the mixed material and mix for further 2 minutes.

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 MD** by hand as this could lead to areas of uncured material.
- **Griptop MD** has a working time of approximately 20 minutes @ 25°C.
- Never leave the mixed Griptop MD 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 MD** to the primed surface and even out using a pin rake adjusted to give the required thickness or using a notched trowel (Approximately 2.8 m²/ kit at 4 mm thickness).



6.3 Immediately after that, roll the surface with a spiked roller to release any entrapped air. *Note: Do not repeat rolling later on.*







- 6.4 In case of application using notched trowel, smooth the surface with flat edge of trowel to remove any sweep marks left by the notched trowel.
- 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 In order to ensure an even finish, trowelling and rolling should be completed within 10 minutes from mixing at normal conditions.

Note: At high ambient and surface temperature, the reaction speed increases and reduces the working time or pot life.

6.7 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 MD** 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 MD** 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 MD** 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 powder and the liquid polymer which will affect the material performance.
- 10.2 Never mix **Griptop MD** by hand as this could lead to areas of uncured material.
- 10.3 **Griptop MD** has a working time of approximately 20 minutes @ 25°C, and it should not be applied at temperatures less than 5°C.
- 10.4 Never leave the mixed **Griptop MD** kit to stand for any length of time prior to application as this will considerably shorten its working time.

Note: **Griptop MD** is not colour stable and may discolour on aging and exposure to UV light, especially with light 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 MD.

Section D: Approval and Variations

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