Method Statement

Ref. #: DCP10/06-A-2021

Repcoat

(One component water based acrylic elastomeric protective anti-carbonation coating system)

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Section A : General Comments

General Notes:

The information below is a detailed overview for the application of **Repcoat** anti-carbonation coating 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.
Note: This guideline is written specifically for **Repcoat**.

High Temperature Working:

Application temperature ranges from 5°C - 40°C. However, it is suggested that, for temperatures above 40°C, the following guidelines are adopted as good working practice:

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

Low temperature working:

It is suggested that, for temperatures below 5°C, the following guidelines are adopted as good working practice:

i. Unmixed materials should be stored in a warm.
ii. Do not apply under rain or snow, and avoid dew points conditions during application.
iii. Avoid applying the product if the temperature is around 5°C and falling.

System Products:

Touch-up repair: **Probuild PF200.**

Primer: **Repcoat Primer.**

Coating: **Repcoat.**

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*
Equipment	:	*Mixing stick (Fig.1)*
	:	*Brush (Fig.2)*
	:	*Roller (Fig.3)*
	:	*Airless spray (Fig.4)*
	:	*Masking tape (Fig.5)*
	:	*Textured roller (Fig.6)*
	:	*Putty Knife (Fig.7)*

Fig.1: Mixing stick

Fig.2: Brush

Fig.3: Roller

Fig.4: Airless spray

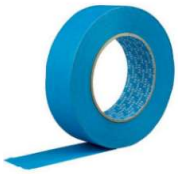


Fig.5: Masking tape

Fig.6: Textured roller

Fig.7: Putty Knife

Section B : Application

1.0 Substrate Preparation

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

1.2 Excess laitance, old coating, mortar, paint splashes or surface treatments are best removed by mechanical grinding, light sand/grit blasting followed by vacuum cleaning to remove dust debris. All preparation equipment should be of a type approved by DCP.

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

1.4 Any traces of mould or algae must be removed and the area to be treated with a suitable fungicide or bleach solution.

1.5 The area to be coated shall be marked on the drawings and on the structure. All areas not to be coated, but which may be affected by spillage or overspray shall be fully masked.

1.6 Surface defects and imperfections such as voids and blowholes and deep cracks should be repaired before application. Consult the DCP's Technical Department for specific recommendations.

1.7 **Repcoat** can be applied over green dry concrete, as long as **Repcoat Primer** is used.

2.0 Priming

2.1 **Repcoat Primer** is used for all absorbent substrates, green concrete, weak substrates such as cement board or non-structural repair mortar before the application of **Repcoat**.

2.2 **Repcoat Primer** does not require dilution when applied with textured roller or brush.

2.3 **Repcoat Primer** is a ready to use single component material that doesn't require mixing. only stir **Repcoat Primer** thoroughly prior to application.

2.4 Apply **Repcoat Primer** by an airless sprayer or a brush at a rate of 0.1 - 0.2 litre/m^2 depending on the porosity of the substrates.

2.5 Ensure 100% primer coverage over the primed surface.

2.6 It is important to wait for a minimum of 12 hours before the application of **Repcoat**.

3.0 Mixing

3.1 **Repcoat** is a ready to use single component material that doesn't require mixing. only stir **Repcoat** thoroughly using a mixing stick prior to application.

3.2 For airless spray application, 5 - 10% dilution is recommended.

4.0 Application

4.1 One or two-coat system may be used. Two coats should always be used on dark, absorbent and heavily textured surfaces and when full carbonation protection is required.

4.2 Porous, rough and irregular surfaces will reduce coverage rates.

4.3 Apply one coat of **Repcoat** evenly using roller, brush or airless spray at a rate of 0.4 litre/m² per coat to achieve 200 micron dry film thickness.

4.4 Ensure a continuous coat is achieved, it is important that no gaps or 'raw edges' appear in the finished coating and allow to cure.

4.5 If any pinholes or irregularities appear, use a putty knife to apply **Probuild PF200** in order to level the surfaces and fill pinholes prior to the application of the second coat of **Repcoat** to produce a smooth even finish.

4.6 The second coat of **Repcoat** can be applied perpendicular to the first coat after 4 hr @ 25°C and 2 hr @ 35°C at a rate of 0.4 litre/m² per coat.

Notes:

- *Check the substrate in advance. Ensure that the substrate is clean, dry and in good condition.*
- *A trial application to check the suitability of the surface, the surface preparation methods shall be undertaken.*
- *Application should not take place when airborne dust or dirt will contaminate the wet coating. In addition, in windy weather the wastage percentage might exceed the 50%.*
- *All areas not to be coated, but which may be affected by spillage or overspray shall be fully masked, apply masking tape on each side of the area to maintain a clean finish.*
- *Proper preparation will eliminate majority of installation failures.*

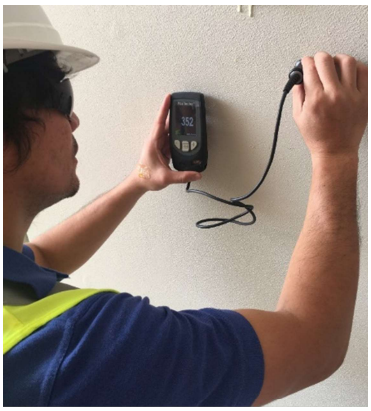
5.0 On-Site Verification Testing

5.1 Two main properties were tested and verified on-site after application:

- Total Dry Film Thickness (DFT)
- Pull-Off Test

5.2 Total Dry Film Thickness (DFT)

- The DFT test shall be carried every 1000 m^2 to ensure all surfaces have achieved the required thickness.
- A non-destructive device that measures the dry film thickness using ultrasound technology for non-metal substrates such as “PosiTector 200” may be used to test the applied coat thickness.



5.3 On-site Pull-Off Test: After the material has cured to ensure a proper bond.

- A pull-off test shall be carried out every 2000 m^2, to ensure that the coating system achieves the required adhesion strength of > 1.5 MPa.

- The test can be done using the "Proceq DY-216" automated pull-off tester, which is designed for elastic surfaces, and according to the EN1542 standard.

6.0 Cleaning

6.1 All tools used for **Repcoat** must be cleaned immediately after application with fresh clean water.

6.2 All tools used for **Repcoat Primer** must be cleaned immediately after application with DCP Solvent when wet. Hardened materials must be cleaned mechanically.

7.0 Limitations

7.1 The recommended application temperature range is between 5 and 40°C.

7.2 The application of **Repcoat Primer** becomes more important when the system is applied over weak substrates such as cement board or non-structural repair mortar.

7.3 Special care should be taken to provide an unbroken coating at external corners and similar exposed protrusions.

7.4 **Repcoat** application should not commence if the temperature of the substrate is below 5°C

7.5 **Repcoat** doesn't require any special curing but must be protected from rain for at least 4 hours at 20°C.

Section C : Cautions

Health and safety

If accidental skin contact occurs, remove immediately with plenty of clean water. If swallowed, seek medical attention immediately.

Fire:

Repcoat is nonflammable.

Repcoat Primer is flammable.

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 **Repcoat** 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.