Deckshield ED Rapide
(4mm)

Deckshield ED Rapide is a crack bridging MMA car park deck coating providing a colourful, waterproof, durable surface for exposed decks.

Typically used to cosmetically enhance and waterproof external and multi-storey car parks.

Rapid Curing:
Fast track application, can be overcoated without mechanical preparation.

Low VOC:
Compliant with Green Star Design & As Built V1.2-13.1.1B, Green Star Interiors V1.2-12.1.1B

Waterproof:
Complies with AS 4654.1:2012 Waterproofing Membrane standard.

Resistant:
Provides fire, slip, abrasion and chemical and UV resistance.

Technical Profile

FIRE RESISTANCE - AS/ISO 9239.1	
CHF Value	2.7 kW/m²
HF-30 Value	4.9 kW/m²
Smoke Value	226% (Mean)
SLIP RESISTANCE*	
Method described in AS4586-2013	>P5 (Based on 24 Mesh White Aluminium Oxide Aggregate)
MOISTURE TRANSMISSION	
ASTM E96/E96M - 16	WVT 9.20 g/m²/24h Permeance 63.1ng/Pa.s.m²
MOVEMENT	
AS AS4654.1:2012 Appendix B	Complies - Class III
MEMBRANE THICKNESS	
AS/NZS 4347.9:1995	1.07mm
DURABILITY	
AS4654.1:2012 Table A4 (a)	Control - Class III
AS4654.1:2012 Table A4 (b)	Water Immersion - Class III
AS4654.1:2012 Table A4 (c)	Detergent Immersion - Class III
AS4654.1:2012 Table A1 & A4 (e)	Heat Ageing 80°C - Class III
AS4654.1:2012 Table A1 & A4 (g)	Temperature Resistance -15°C to +85°C - Class III
VOC CONTENT	
ASTM D2369-10: 2015	<250 g/L
UV STABLE	Yes
SPEED OF CURE* **	**PER COAT**
Walk On	1 hr
Vehicular Traffic	2–3 hrs
Full Chemical Cure	2–3 hrs

Terracotta, Serpentine, Bluebell, Light Grey Blue, Straw

Pastel Grey, Light Grey, Bridge Grey, Dark Grey, Mushroom

The applied colours may differ from the examples shown.
For a full colour chart and samples, contact your local Flowcrete office.

*The specific slip test rating (P0-P5 range) noted in this document is based on the system design, products listed, coverage rates and specific aggregate outlined in this document. This slip test rating can and will change if the standard specification details or installation methods are altered in any way. The specific slip rating (P0-P5 range) noted in this document is based on 96 Rubber slide testing on level non-inclined surfaces. Applicators should refer to methods outlined in AS4586-2013 and SA HB 198:2014.
**Assume concrete or substrate is a minimum of 25 N/mm². ***These figures are typical properties achieved in laboratory tests at 20°C and at 50% Relative Humidity.

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Coving

Coving can form an integral part of the flooring system. It creates a sealed finish between the floor and wall joint. Please refer to Flowtex F1 Coving Mortar for further information.

Substrate Requirements

Concrete or screed substrate should be a minimum of 25 N/mm^2, free from laitance, dust and other contamination. Substrate should be dry to 90% RH as per ASTM F2170 (AS1884:2012). Slab on ground concrete must have an effective damp proof membrane in place.

Installation Service

The installation should be carried out by a qualified contractor with a documented quality assurance scheme. For details of our recommended contractors, contact your local Flowcrete office. Detailed application instructions are available upon request.

Environmental Considerations

The finished system is assessed as non-hazardous to health and the environment. The long service life and seamless surface reduce the need for repairs and maintenance. Environmental and health considerations are controlled during manufacture of the products by Flowcrete staff.

Aftercare, Cleaning & Maintenance

Clean regularly using a single or double headed rotary scrubber drier in conjunction with a mildly alkaline detergent. Please refer to Flowcrete's Cleaning & Maintenance Guide for further information.

Warranty

Flowcrete products are guaranteed against defective materials and manufacture and are sold subject to our standard 'Warranty, Terms and Conditions of Sale', copies of which can be obtained on request. Warranty does not cover suitability, fit for purpose or any consequential or related damages. Please review warranty in detail before installing the products.

Safety Precautions

Wear appropriate Personal Protective Equipment (PPE) including masks, gloves, eye protection and protective clothing during mixing and application. Ensure the working area is well ventilated and follow the appropriate Health and Safety guidelines applicable to the location where the application is undertaken.

Important

This specification assumes a concrete compressive strength greater than 25 N/mm^2, application and curing temperatures of 0–35°C and concrete moisture content less than 90% RH. If moisture content is above 90% RH, please contact Flowcrete Australia.

This specification must be read in conjunction with relevant product technical data sheets and the application of all materials is to be strictly in accordance with manufacturer's instructions.

The recommended substrate temperature for application is 0-30°C. Should the application temperature exceed 30°C or fall below 0°C, please contact Flowcrete Technical Department as the application method may change.

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Deckshield ED Rapide should not be applied to substrates which have an existing waterproof membrane.

Model Specification

System	Deckshield ED Rapide
Finish	Satin
Thickness	4mm
Manufacturer	Tremco CPG Australia Pty Ltd
Contact	+ 61 7 3205 7115

Preparatory work and application in accordance with manufacturer's instructions.

Moisture Testing

Moisture Testing (in accordance with AS4654.1-2012) Hygrometer readings must be taken and recorded so that the correct system can be selected.

Concrete curing compounds and overtrowelled concrete will extend the time taken for the hygrometer to reach equilibrium. Sub-floor measurement readings of up to 90% RH can be accommodated with the system.

NOTE: please ensure enough time is provided to allow the test cell to reach equilibration (this ensures that lower level moisture is accounted for).

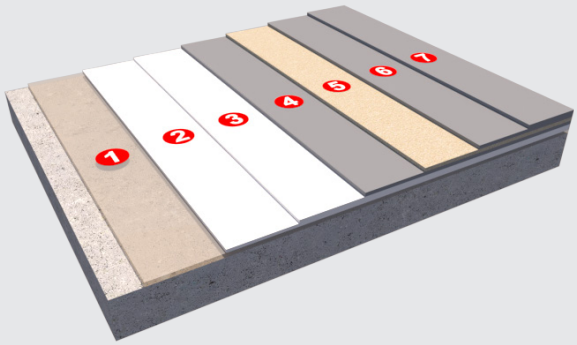
Constructions with thickness greater than 200 mm can take considerably longer than one week before moisture equilibrium is established. To prevent edge effects with these very thick constructions, the area of 1m2 surrounding the instrument should be covered with an impervious sheet material during the test.

To minimize the time required for the instrument to be in a position on the floor, the following technique can be applied.

Cover the positions to be measured with impervious mats (e.g. polyethylene sheet, rubber mats) not less than 1m x 1m, taped to the floor at their edges. Leave in position for at least 3 days in the case of screeds and 7 days in the case of thick constructions. After removing the mat, immediately seal the instrument to the centre of the covered area. Experience has shown moisture equilibrium is usually attained within 2 h to 4 h of placing the instrument but should be left overnight for confirmation.

Alternatively, Flowcrete accept the use of the GE Protimeter Sub-Surface kit, which utilises humidity sleeves for measuring the equilibrium relative humidity (ERH) readings of solid floors and walls. They are inserted into pre-drilled holes to create an air pocket for measuring with a Protimeter Hygrostick.

System Design



Products Included In This System

Layer 1	Flowfast Primer
Layer 2	Deckshield PDS Membrane
Layer 3	Deckshield PDS Membrane
Layer 4	Flowfast Flexible Binder/Silica Flour 100G
Layer 5	Aluminium Oxide
Layer 6	Flowfast Flexible Sealer
Layer 7	Flowfast Flexible Sealer

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Distributor Details

Distributor	Altex Coatings Ltd
Address	91-111 Oropi Road Greerton
Suburb	Tauranga
Country	New Zealand
Postcode	3112
Telephone	+64 7 541 1221
Email	nzweb@flowcrete.com

Outline for Installation

Mechanically Prepare Substrate	
Install Reinforcement Banding	
Apply Flowfast Primer	@ 0.35kg/m²
Apply Deckshield PDS Membrane	@ 0.6kg/m²
Apply Deckshield PDS Membrane	@ 0.6kg/m²
Apply Flowfast Flexible Binder / Silica Flour 100G	@ 1.5kg/m²
Broadcast Non Slip Aggregate into Flexible Binder *Based on 24 Mesh White Aluminium Oxide	@ 3-4kg/m²
Apply Flowfast Flexible Sealer	@ 0.45-0.55kg/m²
Apply Flowfast Flexible Sealer	@ 0.25-0.35kg/m²

Storage

Time	12 Months in Unopened Packs. If longer than 12 Months consult Flowcrete.
Temperature	Storage temperature between 5°C and 35°C.
Protection	Should be stored inside and protected from frost, weather, moisture, direct sunlight and contamination ingress.

Material Set-Up

Before commencing work ensure that your material is set-up by separating all components (e.g. Base A, Hardener B, Filler C etc.) to ensure that all material is correct. Check product labels and ensure there are equal amounts of product.

Site Set-Up

Before commencing work ensure that your site is set-up. Mark the floor according to the specification with masking tape or similar to clearly identify what area (m²) each unit will cover. If this is not achieved (greater or less consumption than the specified amount) immediately stop and contact Flowcrete.

Application Equipment

The use of correct application equipment is critical as incorrect application tools can result in poor finishing and incorrect material consumption. Always test the application equipment prior to commencing work.

The following equipment is recommended for this application.

10-12mm Nap Roller
*Do not use Microfibre

Spike Shoes

Slow Speed Drill with Helical Mixer Head

Notched Rake or Notched Squeegee

Surface Preparation

Concrete should be finished by steel trowel. Surface preparation is to be completed by totally enclosed light shot blasting or course or diamond grinding to a minimum CSP3 prior to any coating application. For proper methods, refer to ICRI's Technical Guideline No. 03732. All cementitious laitance must

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be removed to expose a sound substrate and provide a dry, dust free, open textured surface. All hard to reach areas and areas around the perimeter must be prepared using hand held preparation equipment.

Any damaged areas must be repaired with Flowfast F1 Mortar. Consult Flowcrete prior to using an alternative repair mortar. Any rough or uneven areas must be made smooth with Flowfast F1 SC. Contact Flowcrete for further information.

Application Temperature

The recommended material and substrate temperature is 0 - 30°C, but no less than 0°C. The temperature of the substrate should exceed the "dew point" by 3°C during application and hardening.

Application / Pot Life

Ready-mixed product should be used within 10 minutes at a temperature of 20°C and 1% Flowfast Catalyst. At higher temperatures or higher catalyst levels (or if left in bucket) the application time is shorter.

Decant mixed product into smaller quantities if applying small/detailed areas.

Application of Reinforcement Banding

1. Before applying the Deckshield ED Rapide system, reinforce construction joints and cracks as follows:

Apply a band of Flowfast Primer, 50 mm wider than the reinforcing scrim. Allow to cure.

Apply a band of Deckshield PDS Membrane. While still wet, apply Deckshield Scrim (Permafab), immediately followed by a second layer of Deckshield PDS Membrane. Allow to cure.

2. Reinforce all horizontal and vertical junctions and gullies etc. as follows:

Apply a band of Flowfast Primer and allow to cure.

Apply a fillet of Dymonic 100 sealant to horizontal/vertical junction and allow to cure.

Application of Flowfast Primer

The substrate must be surface dry before the application of Flowfast Primer.

1. Mixing

Decant required amount of materials by weight using digital scales.

Thoroughly mix the resin with a slow speed drill and helical spinner and mix until uniform. Decant required amount of resin into a clean container. Add required amount of Flowfast Catalyst and mix for a further 30 seconds.

2. Application

Immediately after mixing, apply the Flowfast Primer by roller ensuring a continuous, unbroken resin film is applied which ensures full through cure. Apply a second layer if glossy or tacky patches are visible after cure.

NOTE: The Flowfast Primer should be applied **either side** of the reinforcement banding (Deckshield PDS Membrane), **not** over it.

The remainder of the system should then be carried over the reinforcement banding.

Application of Deckshield PDS Membrane

The substrate must be surface dry before the application of Deckshield PDS Membrane. Deckshield PDS Membrane must be applied immediately after application of Flowfast Primer.

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1. Mixing

Decant required amount of materials by weight using digital scales.

Thoroughly mix the resin with a slow speed drill and helical spinner and mix until uniform. Decant required amount of resin into a clean container. Add required amount of Flowfast Catalyst and mix for a further 30 seconds.

2. Application

Immediately after mixing, apply the Deckshield PDS Membrane by roller at 0.6kg/m². Allow to cure. Immediately after curing apply a second layer of Deckshield PDS Membrane by roller at 0.6kg/m² and allow to cure.

NOTE: To ensure good adhesion between the membrane layers, the membrane must be applied over the banding on the same day. If this period is exceeded, wipe the surface of the banding with Flowfast Cleaner to reactivate and apply the waterproofing layer within 1 hour.

In-between coats of the Deckshield PDS Membrane the PDS Membrane maintains a tacky feel , even once cured. This is normal and clean footwear should be used when walking over the Deckshield PDS layers.

Application of Flowfast Flexible Binder

1. Mixing

Decant required amount of materials by weight using digital scales.

Thoroughly mix the resin with a slow speed drill and helical spinner and mix for 30 seconds. Decant required amount of resin into a clean container.

Then add pigment (if supplied separately) and mix for 30 seconds. Add required amount of Flowfast Catalyst and mix for a further 30 seconds.

Based on 1kg of Flowfast Flexible Binder and depending on conditions - add between 1-2kg of Silica Flour to Flowfast Flexible Binder and mix for 60 seconds until uniform.

2. Application

Immediately after mixing, apply the Flowfast Flexible Binder by notched squeegee or notched trowel/rake ensuring an even consistent film is achieved. Immediately back roll or spike roll the surface to smooth out any trowel lines.

Immediately after and before curing of Flowfast Flexible Binder, fully broadcast with non slip aggregate until refusal. Allow to cure. Lightly scrape the surface to remove any loosely bonded aggregate, sweep and vacuum remaining aggregate.

Application of Flowfast Flexible Sealer

The substrate must be surface dry before the application of Flowfast Flexible Sealer. Flowfast Flexible Sealer should be applied after Flowfast Flexible Binder has cured.

1. Mixing

Decant required amount of materials by weight using digital scales.

Thoroughly mix the resin with a slow speed drill and helical spinner and mix for 30 seconds. Decant required amount of resin into a clean container.

Then add pigment (if supplied separately) and mix for 30 seconds. Then add required amount of Flowfast catalyst and mix for a further 30 seconds.

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2. Application

Immediately after mixing, apply the Flowfast Flexible Sealer by roller ensuring an even consistent film is achieved. Allow to cure.

Application of 2nd Coat of Flowfast Flexible Sealer

The substrate must be surface dry before the application of Flowfast Flexible Sealer. Flowfast Flexible Sealer should be applied after Flowfast Flexible Binder has cured.

1. Mixing

Decant required amount of materials by weight using digital scales.

Thoroughly mix the resin with a slow speed drill and helical spinner and mix for 30 seconds. Decant required amount of resin into a clean container.

Then add pigment (if supplied separately) and mix for 30 seconds. Then add required amount of Flowfast catalyst and mix for a further 30 seconds.

2. Application

Immediately after mixing, apply the Flowfast Flexible Sealer by roller ensuring an even consistent film is achieved. Allow to cure.

NOTE: To achieve the best aesthetic results, we recommend there is 1 operative on spike shoes rolling the coating in 1 uninterrupted motion the full width of the area being coated or the full width from joint to joint.

Cleaning

Tools and equipment can be cleaned with MEK/Acetone/Xylene. Please refer to SDS when using solvents.

Trafficking

Allow to cure for a minimum of 2 hours at temperatures no less than 20°C before trafficking.

Notes

When printed or saved externally, this document is uncontrolled and therefore may not be the latest version.

Any recommendation or suggestion relating to the use of the products made by Tremco CPG Australia Pty Ltd., whether in its technical literature, or in response to a specific enquiry, or otherwise, is based upon data believed to be reliable, however the products and information are intended for use by Customers having requisite skill and know-how in the industry and therefore it is for the Customer to satisfy itself of the suitability of the products for its own particular use and it shall be deemed that the Customer has done so at its sole discretion and risk.

Additional Notes

1. System allows for overcoating without mechanical preparation provided the surface is cleaned thoroughly.
2. The product has reached full chemical cure after 2 hours at 20°C.
3. The applied colours may differ from the examples shown.
4. Light and vibrant colours may require additional coats to achieve desired results.
5. Flowcrete assumes no responsibility for the application of incorrect colour.
6. It is the applicators responsibility to verify accuracy of colour prior to application. Flowcrete does not bear any responsibility or accept claims for incorrect colour after application of material.
7. It is recommended that top coat colours match base coat colours to achieve desired results.
8. This system is UV stable.
9. Work completed in sections may have minor shade variation in colours as the RH and temperature on differing days may impact final colour in a slight way.
10. This system should have no contact with water for 2 hours at 20°C or discolouration may occur.
11. This system should be installed at 3°C above the dew point.

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12. Please ensure application temperature and RH limits are followed.
13. Wind or strong airflow may cause quick curing and drying of the system.
14. Ensure wind or strong airflow is eliminated during application, however adequate safety ventilation should still be followed.
15. Direct heat during application of the system can cause flash curing and potential delamination. Ensure you do not apply this system to substrates with temperatures exceeding 30°C.
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