

Deckshield ED Rapide (4mm)

Deckshield ED Rapide is a flexible MMA car park deck coating providing a colourful, watertight, durable surface for exposed decks.

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



Rapid Curing:

Fast track application, dramatically reducing program time.



Resistant:

Provides fire, slip, abrasion and chemical resistance.



Noise Reduction:

Higher textured finishes reduce tyre squeal.



Colourful:

Aesthetically attractive to brighten dark, dull car parks.

Technical Profile

FIRE RESISTANCE

EN 13501-1	C _{FL} - s1
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SLIP RESISTANCE

Method described in AS4586-2013	Dry & Wet Rating is dependant on specification (in accordance with AS4586-2013)
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The slipperiness of flooring materials can change significantly, due to the installation process, after short periods of use, due to inappropriate maintenance, longer-term wear and/or surface contaminants (wet or dry).

Textured systems are recommended to meet slip resistance value requirements for wet conditions and/or surface contaminants (wet or dry) - please contact our Technical Advisors for further details

WATER PERMEABILITY

Karsten Test	Nil (Impermeable)
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RESISTANCE TO CHLORIDE IONS

DOT BD47/94: Appendix B Method B4, 2 (d)	No chloride ion penetration after 28 days.
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BOND STRENGTH

ASTM D4541 (Pull-Off Test)	> 1.5MPa*
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ABRASION RESISTANCE

Taber Abrader	300mg loss per 1000 cycles 1 kg load using CS17 wheels
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CRACK-BRIDGING

BS EN 1062-7 Method A Table 6	Class A3 (-20°C)
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CHEMICAL RESISTANT

Contact Technical Department. Resistant to petrol, diesel, antifreeze, hydraulic fluid, chlorides and battery acids.

SPEED OF CURE**

PER COAT

Walk On	1 hr
Full Traffic & Chemical Cure	2 - 3 hrs

These figures are typical properties achieved in laboratory tests at 20°C and at 50% Relative Humidity.

*Assume concrete or substrate is a minimum of 25 N/mm².

**Cure times at temperatures between 0-30°C can be achieved by altering the quantity of catalyst used.

For applications falling outside of this temperature range, please contact your local Flowcrete Technical Department.



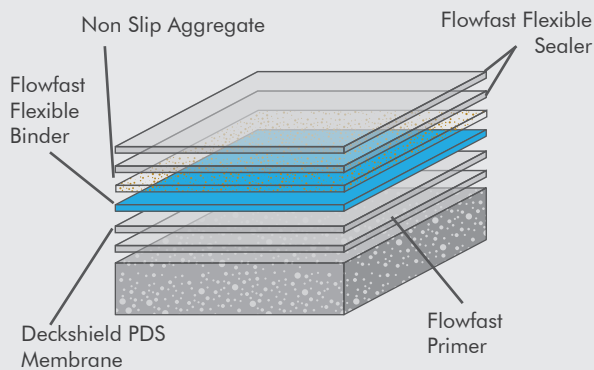
The applied colours may differ from the examples shown. For a full colour chart and samples, contact your local Flowcrete office.

Model Specification

System	Deckshield ED Rapide
Finish	Satin
Thickness	4mm
Distributor	Altex Coatings Ltd
Contact	+64 7 541 1211

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

System Design



Products Included In This System

Layer 1	Flowfast Primer
Layer 2	Deckshield PDS Membrane
Layer 3	Flowfast Flexible Binder
	SNL Filler
	Non Slip Aggregate
Layer 4	Flowfast Flexible Sealer
Layer 5	Flowfast Flexible Sealer

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/mm², free from laitance,

dust and other contamination. Substrate should be dry to 75% RH as per ASTM F2170 (AS1884:2012).

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 Altex Coatings Ltd 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.

Method Statement

System	Deckshield ED Rapide
Specification	4mm Satin

This specification assumes a concrete compressive strength greater than 25 N/mm², application and curing temperatures of 15-35°C, and concrete moisture content less than 75% RH.

If moisture content is above 75% RH, please contact Altex Coatings Ltd.

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.

Distributor	Altex Coatings Ltd
Telephone	+64 7 541 1211
Email	newzealand@flowcrete.com

Important Note

The recommended substrate temperature for application is 15-35°C. Should the application temperature exceed 35°C or fall below 5°C, please contact Flowcrete Technical Department as the application method may change.

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

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 95% 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.

Outline for Installation

Mechanically Prepare Substrate	
Apply Flowfast Primer	@ 0.35kg/m ²
Apply Deckshield PDS Membrane	@ 1.2kg/m ²
Apply Flowfast Binder	@ 1.3kg/m ²
Non Slip Aggregate	@ 0.4kg/m ²
Apply Flowfast Sealer	@ 0.15kg/m ²
Apply Flowfast Sealer	@ 0.15kg/m ²

Storage

12 months in an unopened packaging stored at a temperatures of 5-40°C.

Protect from frost, weather, moisture and contaminant ingress.

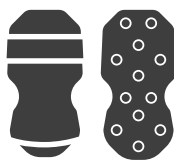
Application Equipment

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
Cover - Lambswool
*Rolana or Equivalent



Spike Shoes



Slow Speed Drill with
Helical Mixer Head



Notched Steel
Trowel



Spike Roller

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.

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.

Surface Preparation

Surface preparation is to be completed by totally enclosed (light shot blasting) or coarse diamond grinding. All cementitious laitance must 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 SC (Flowfast Primer, Flowfast Binder, Sand/Flour). Consult Flowcrete prior to using an alternative MMA scratch coat.

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 (Woven Glass Fibre XR100), 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 band of Deckshield PDS Membrane and allow to cure.

Note: Apply Membrane in two layers on vertical surfaces to prevent slumping.

Application of Flowfast Primer

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

1. Mixing

Thoroughly mix the resin with a slow speed drill and helical spinner and mix for 30 seconds. Then add 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, **not** over it.

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

1. Mixing

Thoroughly mix the resin with a slow speed drill and helical spinner and mix for 30 seconds. Then add catalyst and mix for a further 30 seconds.

2. Application

Immediately after mixing, apply the Deckshield PDS Membrane by roller at 0.5mm thickness. Allow to cure. Immediately after curing apply a second layer of Deckshield PDS Membrane 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.

Application of Flowfast Flexible Binder

The substrate must be surface dry before the application of Flowfast Flexible Binder. Flowfast Flexible Binder should be applied immediately after Deckshield PDS Membrane has cured.

1. Mixing

Thoroughly mix the resin with a slow speed drill and helical spinner and mix for 30 seconds.

Then add pigment (if supplied separately) and mix for 30 seconds.

Based on 1kg of Flowfast Flexible Binder and depending on conditions - add between 1:1 of SNL Filler to Flowfast Flexible Binder and mix for 60 seconds until uniform. Then add catalyst and mix for a further 30 seconds.

2. Application

Immediately after mixing, apply the Flowfast Flexible Binder by notched squeegee or notched trowel ensuring an even consistent film is achieved. Immediately spike roll the surface to assist with levelling and to release any entrained air.

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 Sealer

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

1. Mixing

Thoroughly mix the resin with a slow speed drill and helical spinner and mix for 30 seconds.

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

2. Application

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

Application of 2nd Coat of Flowfast Sealer

The substrate must be surface dry before the application of Flowfast Sealer. Flowfast Sealer should be applied after the 1st coat of Flowfast Sealer has cured for a minimum of 1 hour.

1. Mixing

Thoroughly mix the resin with a slow speed drill and helical spinner and mix for 30 seconds. Then add pigment (if supplied separately) and mix for 30 seconds. Then add catalyst and mix for a further 30 seconds.

2. Application

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

Trafficking

Allow to cure for a minimum of 24 hours at temperatures no less than 10°C before light trafficking.

Note

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 Flowcrete, 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. Maximum overcoat time is 24 hours.
2. The product is fully hardened after 5–7 days.
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 recommended that top coat colours match base coat colours to achieve desired results.
7. This system is not UV stable and will discolour unless otherwise stated.
8. Do not cover or wash within the first 24 hours of curing.
9. This system should have no contact with water for 5 days at 22°C or blooming may occur.
10. This system should be installed at 3°C above the dew point.
11. A low temperature/high humidity environment can cause blooming issues.
12. Please ensure application temperature and RH limits are followed. Wind or strong airflow may cause quick curing and drying of the system.
13. Ensure wind or strong airflow is eliminated during application, however adequate safety ventilation should still be followed.
14. Direct heat during application of the system can cause flash curing and potential elimination. Ensure you do not apply this system to substrates with temperatures exceeding 35°C.