



## DECKSHIELD

- Protection systems designed to meet contemporary requirements for upmarket car park environments.



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# Deckshield Range Technical Profile



Multi storey car parks have always been many customers' first point of contact with commercial destinations and multi story residential complex, but it is only recently that developers have made efforts to improve the quality of the car park experience.

Although often underestimated, the correct specification of waterproofing and surfacing materials is critical, within the car park environment, to delivering a long-term, structurally protected and safe facility for car park operators and vehicle owners.

Flowcrete's Deckshield range offers a number of colourful deck coating solutions geared up to provide slip-resistance, durability and an excellent service life as well as stand-up to common car park problems. What's more, Flowcrete's deck coating systems are Singapore Green Label certified.

## Application Suitability



Exposed Decks



Internal Decks



Ramps



Instructional Signage



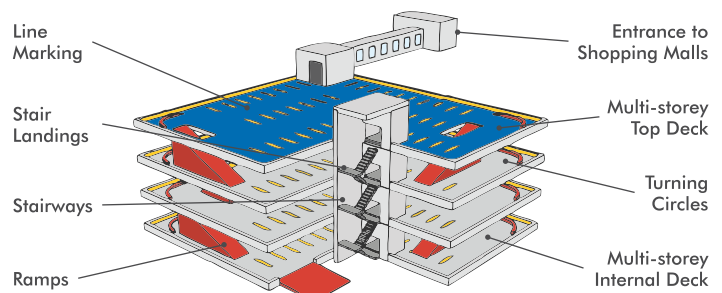
Demarcation



Kerbs / Islands

## Product Selector

Each parking facility consists of a range of zones or areas and requires a number of surface applications as a result. Flowcrete offers a wide range of flooring products to meet the surface requirements of the entire car park as well as neighbouring zones.





PRODUCT	DESCRIPTION	USES
<b>Deckshield Primer</b>	3 Component epoxy resin based primer	Priming of concrete or screed substrate before application of Deckshield System.
<b>Deckshield ID</b>	Singapore Green Label certified 032-089, flexible polyurethane traffic coating system for intermediate car parking levels	Cosmetically & functionally enhances intermediate decks of multi- storey, basement and other trafficable suspended floors
<b>Deckshield ED</b>	Flexible polyurethane deck coating (colourful crack bridging & waterproof surface) for exposed car park decks	Cosmetically & functionally enhances top deck of an car park making them brighter and safer places to visit.
<b>Deckshield ID Rapide</b>	Methylmethacrylate(MMA car park traffic coating system for internal multistorey parking structures.	Developed to enable very fast track applications, dramatically reducing program time
<b>Deckshield ED Rapide</b>	Methylmethacrylate(MMA) traffic coating system for exposed car park decks	Developed to enable very fast application times for external deck for multi-story car park.
<b>Deckcoat OP</b>	2 Component Epoxy Orange Peel finish car deck coating	Designed to create a uniform "Orange Peel" surface texture.The lightly textured surface provides enhanced slip resistance while remaining easy to clean for car parking areas.
<b>Deckcoat EP</b>	Singapore Green Label certified - 032-089 Epoxy traffic coating system for interior car parking levels	Cosmetically enhances multi-storey car parks,making them brighter and safer places to visit
<b>Deckshield UV</b>	2-component, Coloured, UV light stable, polyurethane coating	Used as part of the Deckshield system to provide a UV light stable finish
<b>Deckshield UV Line Marker</b>	UV stable, Polyurethane based car park line-marker	For use in car parks and segregation areas. Designed for use in conjunction with the Deckshield systems



032-089  
Environmentally Preferred  
Coating

## Technical Profile

### TEMPERATURE RESISTANCE

Softens over 70°C, hardens on cooling

### RESISTANCE TO CHLORIDE IONS

DOT BD47/94: Appendix B, Method B4,2(d).

No chloride ion penetration after 28 days

### BOND STRENGTH

ASTM D4541 (Pull-Off Test)

> 1.5 MPa\*

### FIRE RESISTANCE

EN 13501-1

B<sub>1</sub> - s1

### SLIP RESISTANCE

BS 7976-2 (typical values for 4-S rubber slider)

Dry > 40, Wet dependant on specification

### ABRASION RESISTANCE

Taber Abrader (1kg load using CS17 wheels)

0.1 g loss per 1000 cycles

### VOC CONTENT

ISO11890-2

Very low <20 g/L

\*Assumes concrete compressive strength is greater than 25N/mm<sup>2</sup>

## Deckshield ID

A Green Label certified polyurethane car park deck coating system for intermediate multi storey decks.

Deckshield ID cosmetically enhances and reduces noise, making multi storey car parks brighter, safer environments to visit.



Green Label certified and low in VOCs



Attractive to brighten up dark car parks

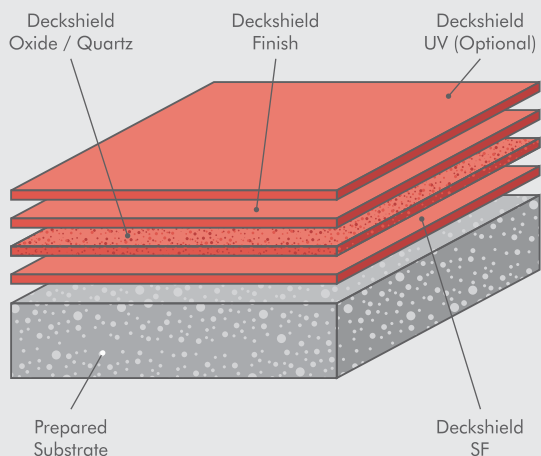
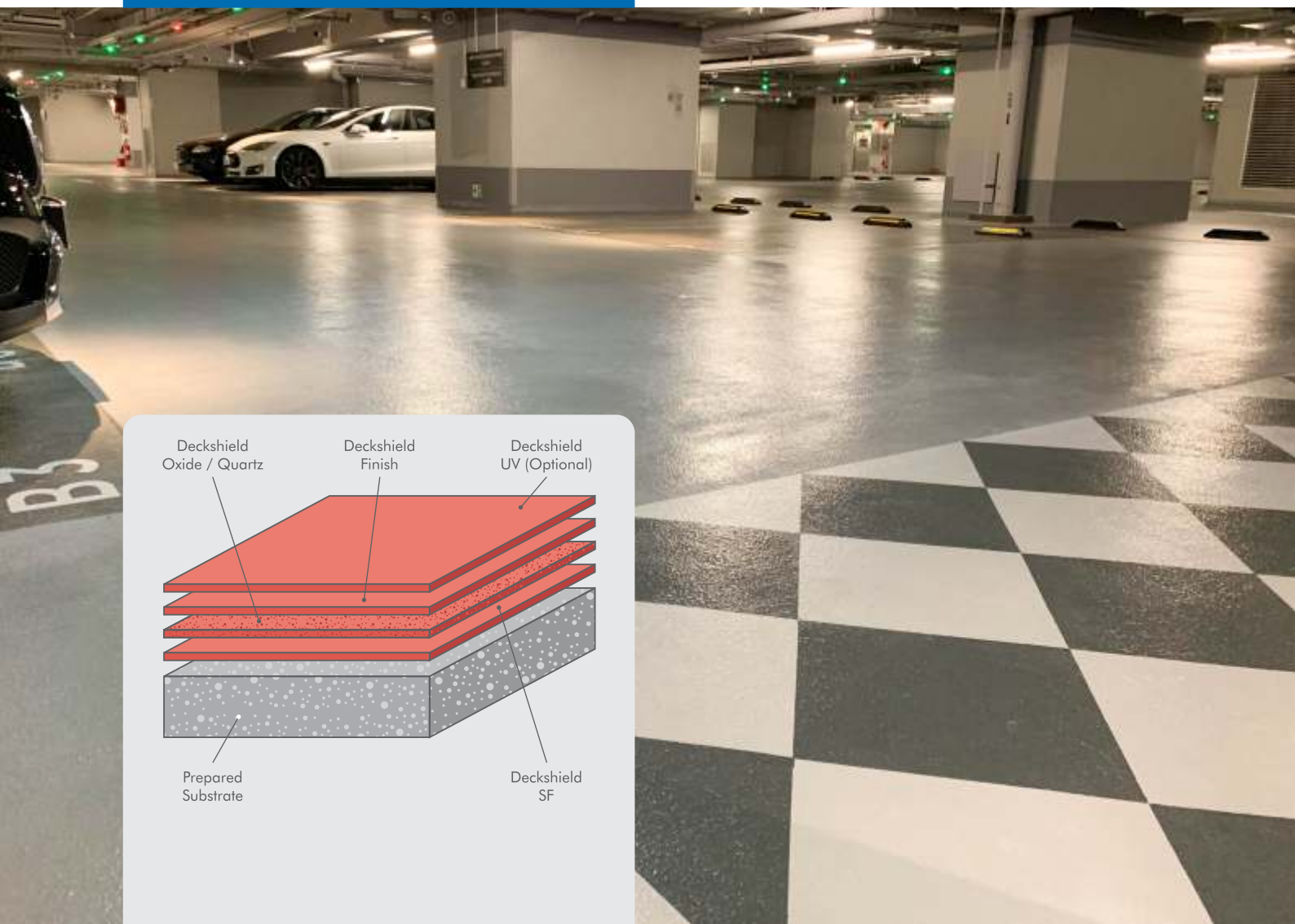


Protects against chemicals, fire and slips



100% UV stable, without yellowing

For a full Technical Profile, contact your local Technical Department.



# Deckshield ED

A polyurethane car park deck coating system providing a colourful crack bridging, waterproof surface for exposed decks.

Deckshield ED cosmetically enhances and reduces noise, making exposed car park decks brighter, safer environments to visit.



### Waterproofing:

A waterproof surface that protects the concrete structure against weather.



### Environmentally Friendly:

Low in Volatile Organic Compounds (VOCs) and solvent free..



### Attractive:

Brightens up dull, dark and musty car park environments.



### Resistant:

Excellent resistance to chemicals, fire and has a low slip potential.



### Reduces Noise:

Higher textured finishes reduce unwanted tyre squeal.



### UV Stable:

100% UV light stable. Prevents from yellowing effect.

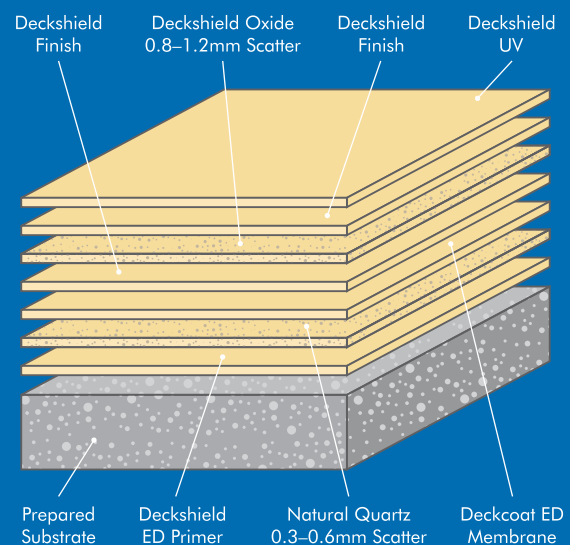
## Chemical Resistance

Petrol	✓
Diesel	✓
Antifreeze	✓
Hydraulic Fluid	✓
Chlorides	✓
Battery Acids	✓

## Technical Profile

TEMPERATURE RESISTANCE	
Softens over 70°C, hardens on cooling	
CAPILLARY ABSORPTION & PERMEABILITY TO WATER	
EN 1062-3	w <0.1 kg / m <sup>2</sup> x h <sup>0.5</sup>
RESISTANCE TO CHLORIDE IONS	
DOT BD47/94: Appendix B, Method B4,2(d).	No chloride ion penetration after 28 days
BOND STRENGTH	
ASTM D4541 (Pull-Off Test)	> 1.5 MPa*
FIRE RESISTANCE	
EN 13501-1	B <sub>fi</sub> - s1
SLIP RESISTANCE	
BS 7976-2	Dry >40, Wet dependant on specification
ABRASION RESISTANCE	
Taber Abrader (1 kg load using CS17 wheels)	300 mg loss per 1000 cycles

SPEED OF CURE**	10°C	20°C	30°C
Light Traffic	30 hrs	18 hrs	12 hrs
Full Traffic	48 hrs	36 hrs	24 hrs
Full Chemical Cure	12 days	7 days	6 days



\*Assumes concrete compressive strength is greater than 25N/mm<sup>2</sup>

\*\* 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.

For a full Technical Profile, contact your local Technical Department.

## Technical Profile

### TEMPERATURE RESISTANCE

Softens over 70°C, hardens on cooling

### WATER PERMEABILITY

Karsten Test Nil (Impermeable)

### RESISTANCE TO CHLORIDE IONS

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

### BOND STRENGTH

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

### FIRE RESISTANCE

EN 13501-1 C<sub>fl</sub> - s1

### SLIP RESISTANCE

BS 7976-2 Dry > 40, Wet dependant on specification

### SPEED OF CURE (PER LAYER)

Walk On 1 hour

Full Traffic & Chemical Cure 2-3 hours

\*Assumes concrete compressive strength is greater than 25N/mm<sup>2</sup>

## Deckshield ID Rapide

A methyl methacrylate car park deck coating system providing a colourful surface for intermediate decks.

Deckshield ID Rapide has been developed to enable very fast track applications, therefore dramatically reducing down time.



Fast cure methyl methacrylate resin



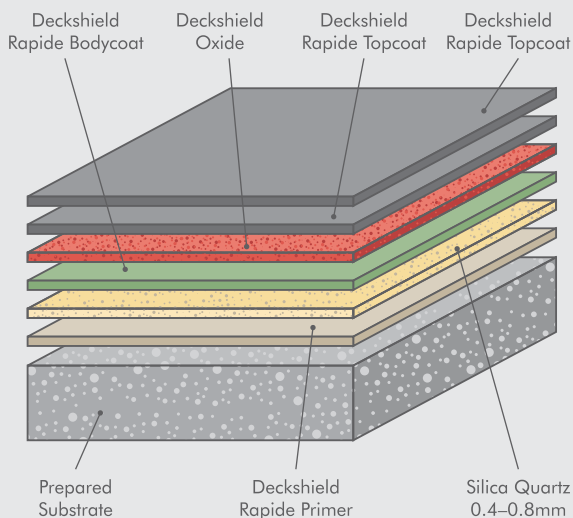
Attractive to brighten up dark car parks

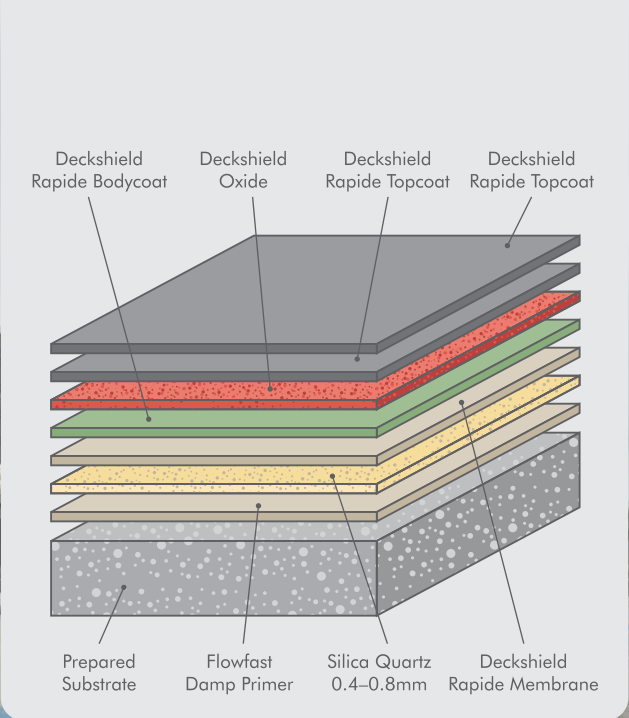
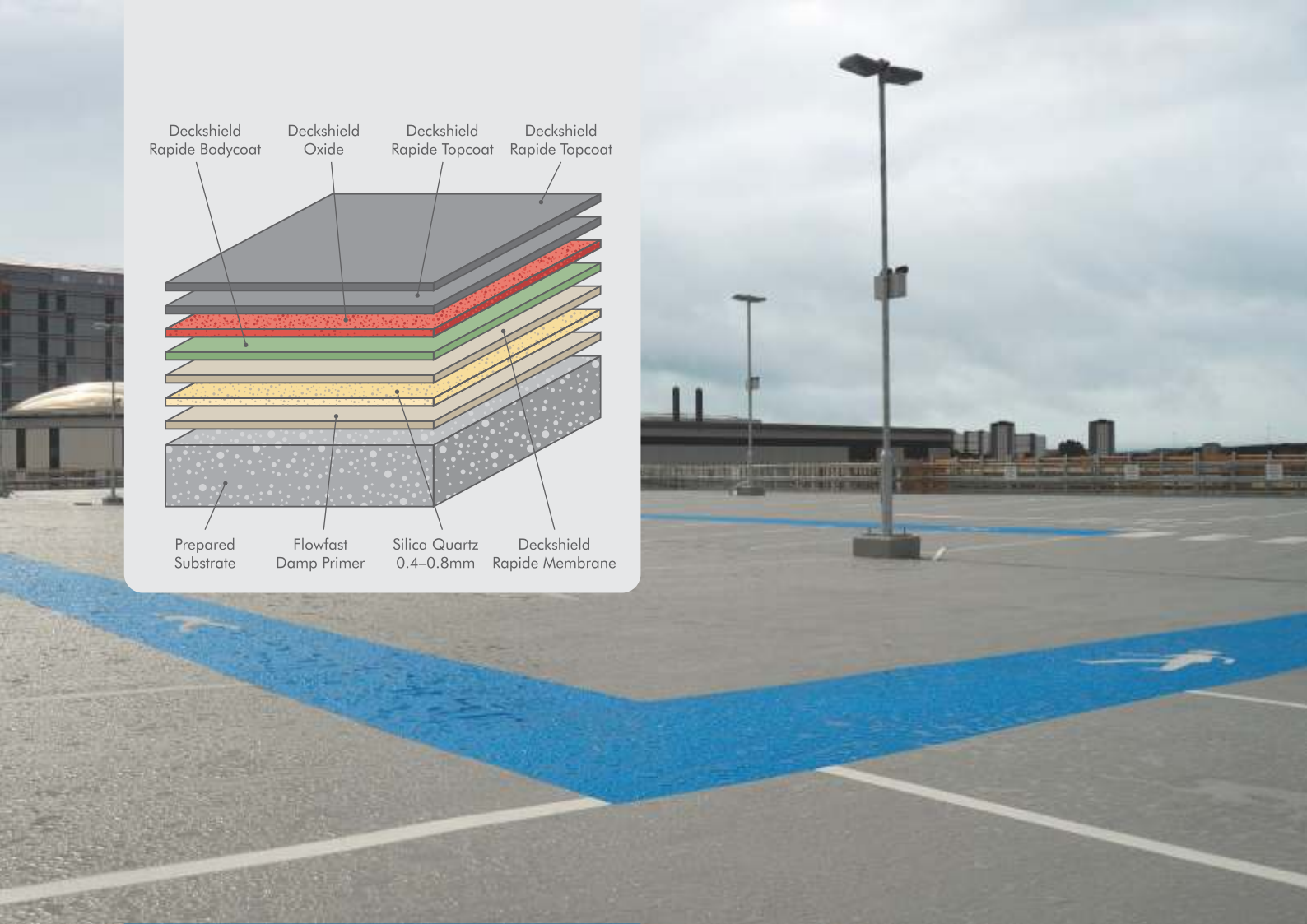


Hard wearing to minimise repair costs



Protects against chemicals, fire and slips





## Technical Profile





WATER PERMEABILITY	
Karsten Test	Nil (Impermeable)
BOND STRENGTH	
ASTM D4541 (Pull-Off Test)	> 1.5 MPa*
FIRE RESISTANCE	
EN 13501-1	C <sub>fl</sub> - s1
SLIP RESISTANCE	
BS 7976-2	Dry > 40, Wet dependant on specification
ABRASION RESISTANCE (TOP COAT)	
Taber Abrader (1kg load using CS17 wheels)	300 mg loss per 1000 cycles
SPEED OF CURE (PER LAYER)	
Walk On	1 hour
Full Traffic & Chemical Cure	2-3 hours

\*Assumes concrete compressive strength is greater than 25N/mm<sup>2</sup>

## Deckshield ED Rapide

A methyl methacrylate car park deck coating system providing a colourful watertight, hard wearing surface for exposed decks.

Deckshield ED Rapide has been developed to enable very fast track applications, therefore dramatically reducing down time.

-  Fast cure methyl methacrylate resin
-  Enhances car park's appearance
-  Hard wearing to minimise repair costs
-  Protects against chemicals, fire and slips



# Deckshield LBD



Deckshield LBD is a polyurethane traffic coating system that incorporates a technically advanced polyurethane based dissipating moisture barrier.

Ensures the controlled dissipation of moisture vapour at the lowest basement car park levels.

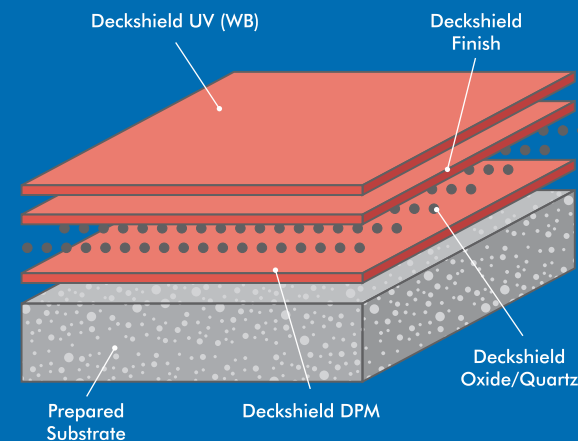
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**Moisture Barrier:**  
 Tolerates up to 100% relative humidity in the concrete or screed substrate.
- 
**Attractive:**  
 Brightens up dull, dark, musty car parks and suspended floors.
- 
**Hard-Wearing:**  
 Hard-wearing & abrasion resistant suitable for regular vehicle traffic.
- 
**Slip Resistant:**  
 Highly textured finish to provide a safe environment for vehicular ramp users.
- 
**Chemical Resistant:**  
 Excellent resistance to engine oil, battery acid, hydraulic fluid, fuel, etc.



## Technical Profile

FIRE RESISTANCE	
EN 13501-1	B <sub>f1</sub> - s1
SLIP RESISTANCE	
Method described in BS 7976-2 (typical values for 4-S rubber slider)	Dry > 40, Wet depends on specification (in accordance with HSE and UKSRG guidelines)
TEMPERATURE RESISTANCE	
Softens over 70°C, Hardens on cooling	
CHEMICAL RESISTANCE	
Contact Technical Department. Resistant to petrol, diesel, antifreeze, hydraulic fluid, chlorides and battery acids.	
ABRASION RESISTANCE	
ASTM D4060 (1 kg load using CS17 wheels)	0.1g loss per 1000 cycles
WATER PERMEABILITY	
Nil - Karsten test (impermeable)	
BOND STRENGTH	
> 1.5 MPa*	
UV LIGHT RESISTANCE (WITH DECKSHIELD UV WB TOPCOAT)	
Excellent (non-yellowing)	

SPEED OF CURE	10 °C	20 °C	30 °C
Light Traffic	30 hrs	18 hrs	12 hrs
Full Traffic	48 hrs	36 hrs	24 hrs
Full Chemical Cure	12 days	7 days	6 days



\*Assumes concrete compressive strength is greater than 25N/mm<sup>2</sup>

# Deckcoat OP

A car park decking system providing a watertight, trafficable, orange peel texture, wearing surface for intermediate decks.

Deckcoat OP is suitable for refurbishment of existing car parks or new construction projects



### Hygienic:

Contains Polygiene®, an antimicrobial additive that inhibits bacteria growth.



### HACCP International Certified:

Certified as food-safe for use in wet and dry food handling areas.



### High Chemical Resistance:

Protects against a majority of acids used in manufacturing processes.



### Abrasion Resistant

A hard-wearing & abrasion resistant finish to protect the substrate below.



### Temperature Resistant

Very good thermal shock properties and resistant to extreme temperatures.



## Technical Profile

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

### FIRE RESISTANCE

BS476-7: Surface spread of flame: Class 1

### SLIP RESISTANCE

TRRL Pendulum Slip Test Dry >40 Wet depends on specification

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 and specifications.

### TEMPERATURE RESISTANCE

Tolerant up to 60°C

### WATER PERMEABILITY

Nil-Karsten test (impermeable)

### SURFACE HARDNESS

180secs. Koenig Hardness Test

### CHEMICAL RESISTANCE

Contcat Technical Department

### ABRASION RESISTANCE

Taber Abrader: 80 mg loss per 1000 cycles (1 kg load using CS10 wheels)

### COMPRESSIVE STRENGTH

> 60 N/mm<sup>2</sup> (BS6319)

### FLEXURAL STRENGTH

> 40 N/mm<sup>2</sup> (BS6319)

### TENSILE STRENGTH

> 15 N/mm<sup>2</sup> (BS6319)

### STRENGTH

Greater than cohesive strength of 25 N/mm<sup>2</sup> concrete. > 1.5 MPa.

### SPEED OF CURE

	10°C	20°C	30°C
Light traffic	48 hrs	24 hrs	18 hrs
Full traffic	72 hrs	48 hrs	36 hrs
Full chemical cure	12 days	7 days	6 days

# Deckcoat EP



A Green Label certified epoxy car park deck coating system providing a colourful watertight, surface for intermediate decks of multi storey structures.

Deckcoat EP cosmetically enhances and reduces noise, making multi storey car park decks brighter, safer environments to visit.



### Environmentally Friendly:

Green Label certified and low in Volatile Organic Compounds (VOCs).



### Attractive:

Brightens up dull, dark and musty car park environments.



### Resistant:

Resistance to chemicals, fire and has a low slip potential.

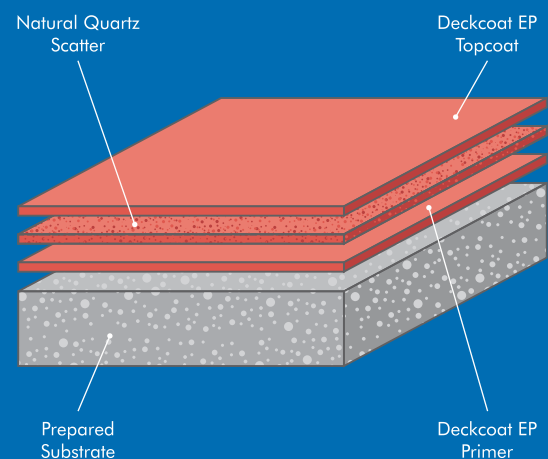
## Chemical Resistance

Petrol	✓
Diesel	✓
Antifreeze	✓
Hydraulic Fluid	✓
Chlorides	✓

## Technical Profile

TEMPERATURE RESISTANCE	
Tolerant up to 60°C	
WATER PERMEABILITY	
Karsten Test	Nil (Impermeable)
BOND STRENGTH	
ASTM D4541 (Pull-Off Test)	> 1.5 MPa*
FIRE RESISTANCE	
EN 13501-1	B <sub>fl</sub> - s1
SLIP RESISTANCE	
BS 7976-2	Dry >40, Wet dependant on specification
ABRASION RESISTANCE	
Taber Abrader (1 kg load using CS10 wheels)	80 mg loss per 1000 cycles
SURFACE HARDNESS	
Koenig Hardness Test	180 Seconds

SPEED OF CURE**	10°C	20°C	30°C
Light Traffic	48 hrs	24 hrs	18 hrs
Full Traffic	72 hrs	48 hrs	36 hrs
Full Chemical Cure	12 days	7 days	6 days



\*Assumes concrete compressive strength is greater than 25N/mm<sup>2</sup>

\*\* 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.

# Deckshield Linemarker

A single component, solvent based, high build linemarking product with a fast cure time.

Deckshield Linemarker provides good adhesion to a wide range of substrates and offers high abrasion resistance.



Fast cure for a quick turnaround



Contributes to an attractive aesthetic



Hard wearing against traffic



Resistant to oils, petrols and chemicals

## Colours



White



Traffic Yellow

## Technical Profile

### TEMPERATURE RESISTANCE

Tolerant up to 80°C

### WATER PERMEABILITY

Karsten Test Nil (Impermeable)

### CHEMICAL RESISTANCE

Resistant to petrol, oil, diesel

### BOND STRENGTH

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

### FIRE RESISTANCE

BS476: Part 7 Class 3 (indicative)

### SLIP RESISTANCE

TRRL Pendulum Slip Test Dry >90, Wet >40

### ABRASION RESISTANCE

BS8204: Part 2 Class AR2

SPEED OF CURE**	10°C	20°C	30°C
Dry to No Pickup	40 mins	10 mins	10 mins
Dry Through Time	40 mins	<20 mins	<10 mins
Full Traffic	>12 hrs	>4 hrs	>3 hrs
Full Chemical Cure	>12 hrs	>4 hrs	>3 hrs

\*Assumes concrete compressive strength is greater than 25 N/mm<sup>2</sup>

\*\*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.



- Tremco Construction Products Group (CPG) India is a market leader in the manufacture of Construction Chemical products including seamless industrial and commercial resin flooring solution, waterproofing systems, roofing with insulation, systems for joints & durable sealants, admixtures, repair solution, fibres as well as other specialist construction products & coatings.
- Tremco CPG India belongs to an wider global Tremco Construction Products Group company (an RPM Inc. division) headquartered in Cleveland, Ohio (USA).
- Tremco Construction Products group is a powerful union of some of the world's most trusted & leading chemical and coatings technology brands owned by RPM Inc.

**Flowcrete**  
for the world at your feet

**TREMCO**



**Vandex**

**Millbruck**

**Dryvit**

**Nullifire**

**Willseal**

**TREMCO**  
Construction Products Group

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