



DECKSHIELD

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

Deckshield Range Technical Profile



Multi-storey car parks have always been many customers' first point of contact with commercial destinations, 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 Hong Kong'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



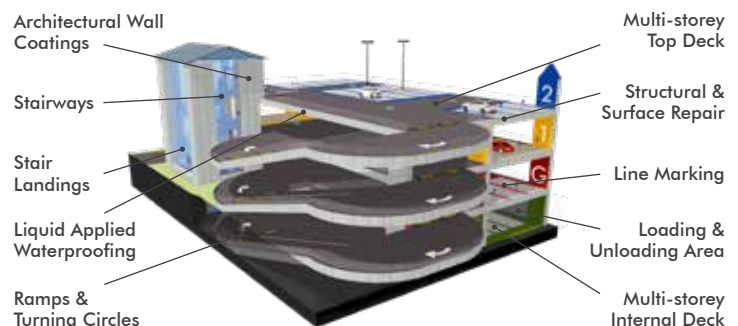
Demarcation



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.



Deckshield ID



Deckshield ID is a Green Label certified polyurethane car park deck coating system for intermediate decks of multi-storey structures.

Deckshield cosmetically enhances and reduces noise, making multi-storey car parks 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:

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



Reduces Noise:

Higher textured finishes reduce tyre squeal.



100% UV Light Stable:

Prevents from yellowing effect (with aliphatic Deckshield UV (WB) topcoat).



Forest Green



HK Red



Light Blue



HK Ocean Blue



HK Mid Grey



Dark Grey



Black

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

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 B_{FL} - s1

SLIP RESISTANCE

BS 7976-2 (typical values for 4-S rubber slider) Dry > 40, Wet depends on specification (in accordance with HSE & UKSRG guidelines)

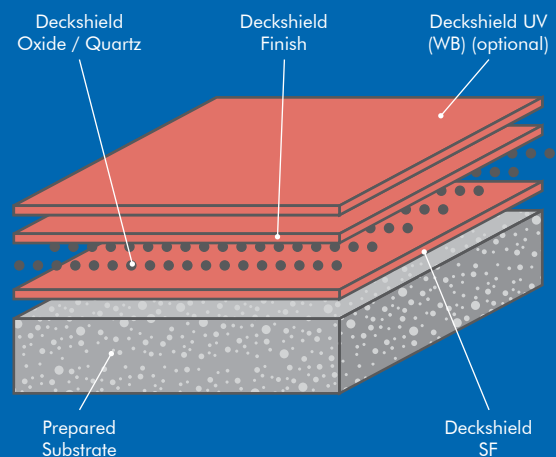
ABRASION RESISTANCE

Taber Abrader 0.1g loss per 1000 cycles (1kg load using CS17 wheels)

VOC CONTENT

ISO 11890-2 Very low <20 g/L

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 25 N/mm²

Deckshield IDEP



Deckshield IDEP is a Green Label certified polyurethane with solvent free epoxy damp primer car park deck coating system.

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



Environmentally Friendly:

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



Moisture Barrier:

Tolerates up to 95% relative humidity in the concrete or screed substrate.



Resistant:

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



Reduces Noise:

Higher textured finishes reduce tyre squeal.



100% UV Light Stable:

Prevents from yellowing effect (with aliphatic Deckshield UV (WB) topcoat).



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 B_{FL} - s1

SLIP RESISTANCE

BS 7976-2 (typical values for 4-S rubber slider) Dry > 40, Wet depends on specification (in accordance with HSE & UKSRG guidelines)

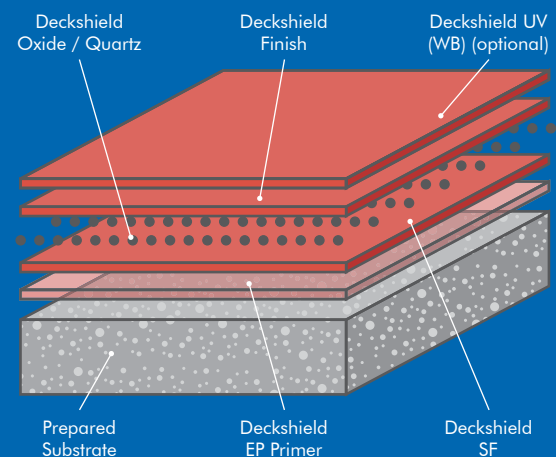
ABRASION RESISTANCE

Taber Abrader 0.1g loss per 1000 cycles (1kg load using CS17 wheels)

VOC CONTENT

ISO 11890-2 Very low <20 g/L

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 25 N/mm²



Deckshield LBD

Flexible polyurethane deck coating
Deckshield LBD provides a colourful,
hard-wearing, temporary moisture
barrier for lower basement decks.

The attractive, highly resistant system, designed
to work without the application of a separate
damp proof membrane, delivers superior
protection against uprising moisture from the
substrate below.



Moisture Vapour Resistant:

Tolerates up to 100% relative humidity
in the concrete or screed substrate.



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
tyre squeal.

Technical Profile

APPLICATION SUITABILITY

- | | |
|-------------|-----------------|
| ✓ New build | ✓ Refurbishment |
|-------------|-----------------|

TEMPERATURE RESISTANCE

Tolerant of sustained temperatures up to 70°C

WATER PERMEABILITY

Karsten Test	Nil (Impermeable)
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BOND STRENGTH

>1.5 MPa*

FIRE RESISTANCE

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

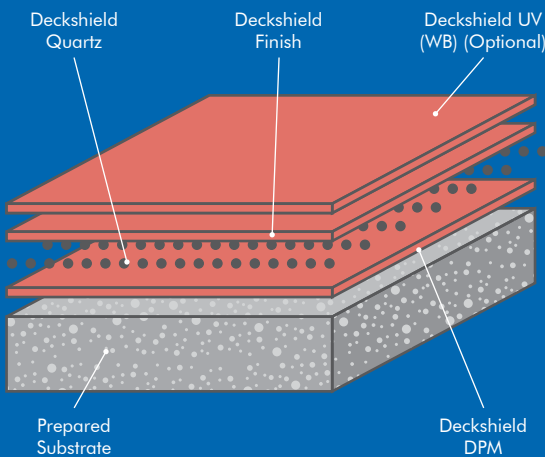
BS 7976-2 (typical values for 4-S rubber slider)	Dry >40, Wet depends on specification (in accordance with HSE & UKSRG guidelines)
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ABRASION RESISTANCE

ASTM D4060	0.1g loss per 1000 cycles (1kg load using CS17 wheels)
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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 25 N/mm²

Deckshield IDSD



Deckshield IDSD is a special duty Green Label Certified flexible polyurethane car park deck coating system for intermediate decks.

The hard-wearing finish is low in VOCs and provides a bright, colourful, watertight finish to cosmetically enhance parking environments.



Environmentally Friendly:

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



Attractive:

Brightens up dull, dark and musty car park environments.



Resistant:

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



Hard-wearing:

Provides a durable finish, resistant to abrasion and hair line cracking.



Reduces Noise:

Higher textured finishes reduce tyre squeal.



Technical Profile

TEMPERATURE RESISTANCE

Softens over 70°C, hardens on cooling

WATER PERMEABILITY

Karsten Test Nil (Impermeable)

BOND STRENGTH

> 1.5 MPa*

FIRE RESISTANCE

EN 13501-1 B_{FL} - s1

SLIP RESISTANCE

BS 7976-2 (typical values for 4-S rubber slider) Dry > 40, Wet depends on specification (in accordance with HSE & UKSRG guidelines)

ABRASION RESISTANCE

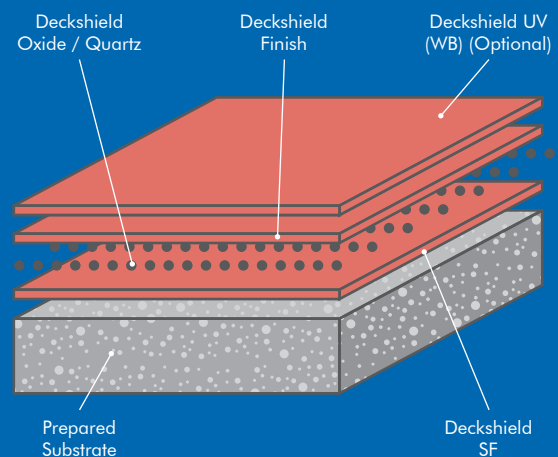
ASTM D4060 0.1g loss per 1000 cycles (1kg load using CS17 wheels)

VOC CONTENT

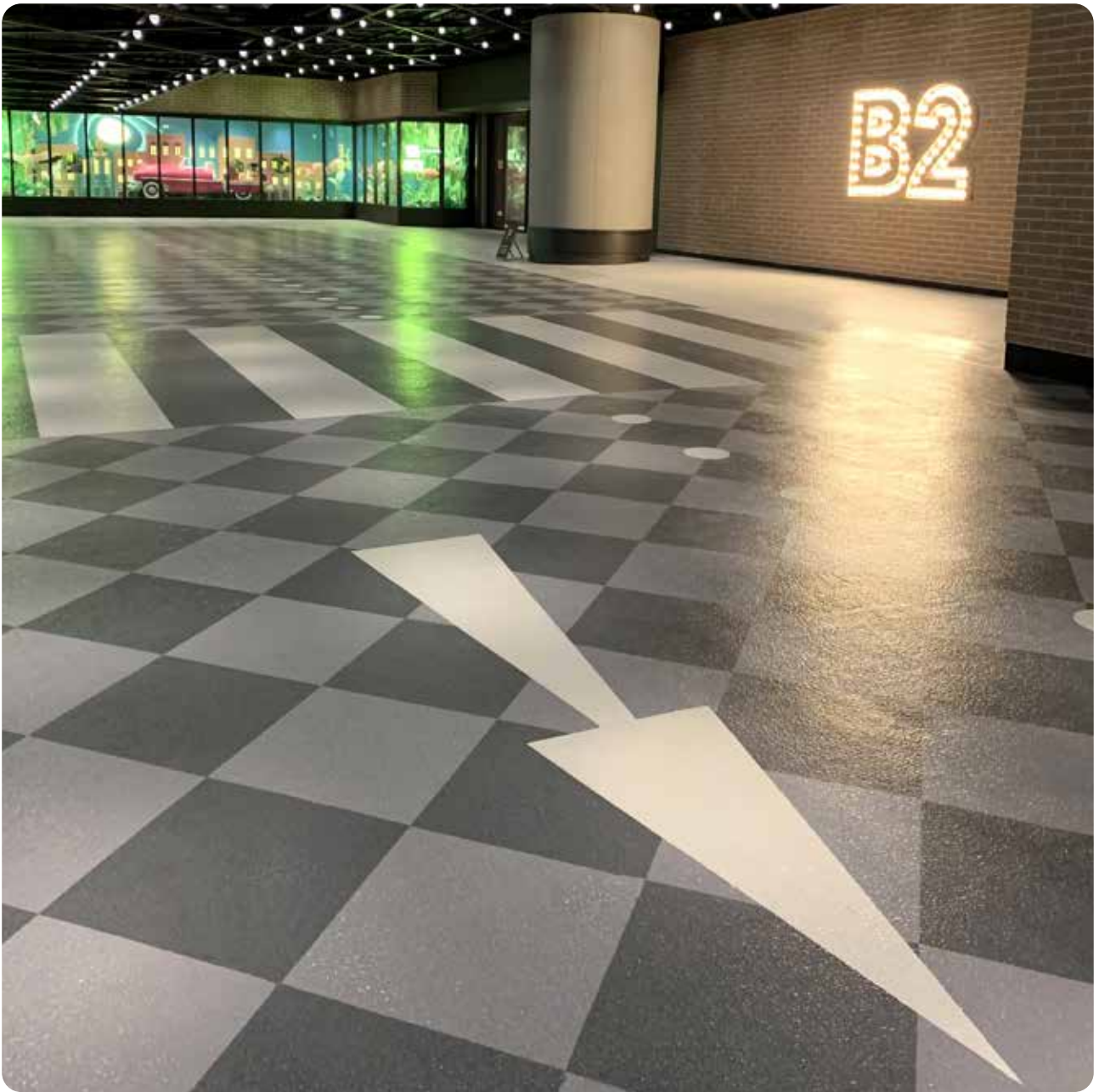
ISO 11890-2 Very low < 20 g/L

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 25 N/mm²



Deckshield IDSD High Grade

A solvent free, flexible polyurethane ramp coating system that is finished with bauxite/emery aggregates for a highly textured, antislip finish.

Provides a suitable surface for steep and circular internal car park ramps.



Excellent Slip Resistance:

Highly textured finish to provide a safe environment for vehicular ramp users.



Fire Resistant:

Provides a safe environment for car parking facilities.



Hard-Wearing:

Hard-wearing & abrasion resistant suitable for regular vehicle traffic.



Solvent Free:

Solvent free, low in VOCs and environmentally friendly.



Technical Profile

WATER PERMEABILITY

Karsten Test	Nil (Impermeable)
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TEMPERATURE RESISTANCE

Softens over 70°C, Hardens on cooling

BOND STRENGTH

Greater than cohesive strength of 25 N/mm² concrete.
> 1.5 MPa

FIRE RESISTANCE

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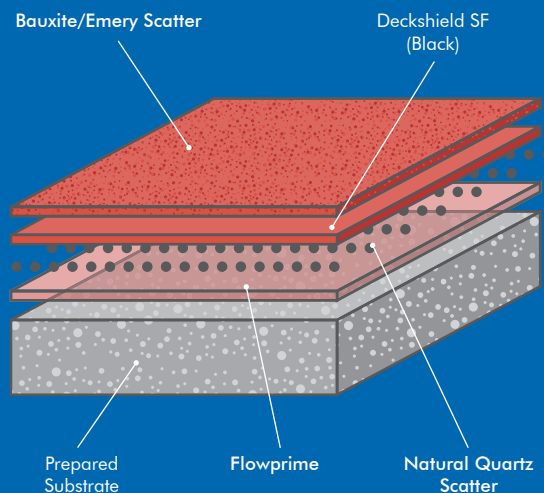
SLIP RESISTANCE

BS 7976-2 (typical values for 4-S rubber slider)	Dry > 40, Wet depends on specification (in accordance with HSE and UKSRG guidelines)
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ABRASION RESISTANCE

Taber Abrader	50mg loss per 1000 cycles (1kg load using H-22 wheels)
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SPEED OF CURE	10 °C	20 °C	30 °C
Light Traffic	30 h	16 h	10 h
Full Traffic	36 h	24 h	16 h
Full Chemical Cure	12 d	7 d	6 d



*Assumes concrete compressive strength is greater than 25 N/mm²

Deckshield External Ramp

A PU traffic coating system that incorporates special Bauxite/Emery aggregates, providing a hard wearing, anti-slip profile.

Deckshield External Ramps has been designed for steep or circular external car park ramps.



Excellent Slip Resistance:

Provides a highly textured, anti-slip profile for added grip on steep ramps.



Hard Wearing:

A high build system that protects against regular multi-flow vehicle traffic.



Solvent Free:

Solvent free, low in VOCs and environmentally friendly.



Excellent Bond Strength:

Bonds exceptionally well to the substrate below.



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

Greater than cohesive strength of 25 N/mm² concrete.
> 1.5 MPa

FIRE RESISTANCE

EN 13501-1

B_{FL} - s1

SLIP RESISTANCE

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

Dry > 40, Wet depends on specification (in accordance with HSE and UKSRG guidelines)

ABRASION RESISTANCE

ASTM D4060

50 mg loss per 1000 cycles (1 kg load using H-22 wheels)

VOC CONTENT

ISO11890-2

Very Low <20 g/L

SPEED OF CURE

10°C

20°C

30°C

Light Traffic

30 h

18 h

12 h

Full Traffic

48 h

36 h

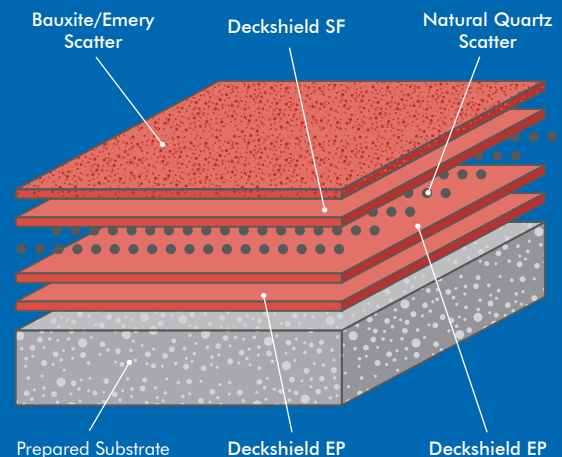
24 h

Full Chemical Cure

12 d

7 d

6 d



*Assumes concrete compressive strength is greater than 25 N/mm²



Deckshield ED

Deckshield ED is 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.



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 tyre squeal.



UV Stable:

100% UV light stable. Prevents from yellowing effect.



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

Greater than cohesive strength of 25 N/mm² concrete. >1.5 MPa

FIRE RESISTANCE

EN 13501-1

B_{FL} - s1

SLIP RESISTANCE

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

Dry>40, Wet depends on specification (in accordance with HSE & UKSRG guidelines)

ABRASION RESISTANCE

Taber Abrader

300mg loss per 1000 cycles (1kg load using CS17 wheels)

CRACK BRIDGING

BS EN 1062-7 Method B1

0.5mm

CAPILLARY ABSORPTION & PERMEABILITY TO WATER

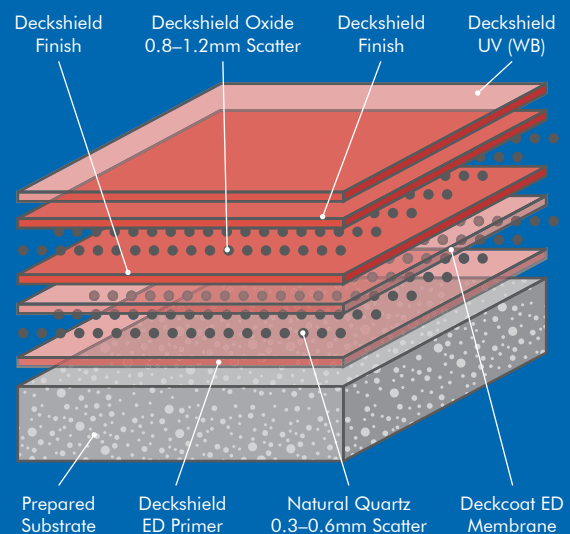
EN 1062-3

w <0.1 kg/m² x h^{0.5}

UV LIGHT RESISTANCE

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 25 N/mm²



Deckshield ID Rapide

Deckshield ID Rapide is a MMA car park deck coating system providing a colourful surface for intermediate decks of multi-storey structures.

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



Fast Cure:

MMA resin speeds up cure time, reducing construction schedules.



Attractive:

Brightens up dull, dark and musty car park environments.



Hard-wearing:

Lengthens the car park's lifecycle and minimises future reinstallation costs.



Resistant:

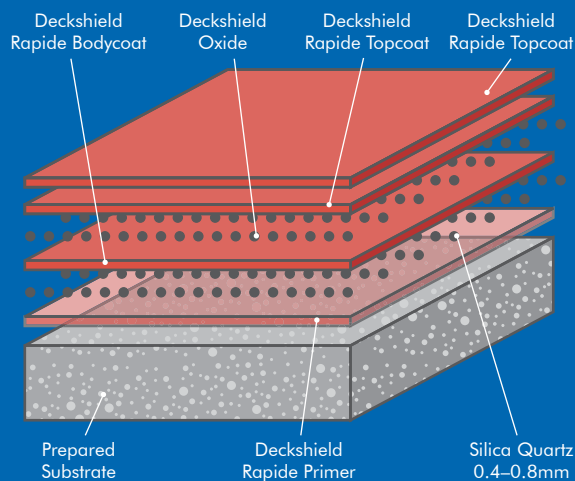
Excellent resistance to chemicals, fire and has a low slip potential.



Technical Profile

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 _{FL} - s1
SLIP RESISTANCE	
BS 7976-2 (typical values for 4-S rubber slider)	Dry > 40, Wet depends on specification (in accordance with HSE & UKSRG guidelines)
ABRASION RESISTANCE (TOPCOAT)	
Taber Abrader (1 kg load using CS17 wheels)	300 mg loss per 1000 cycles

SPEED OF CURE (PER LAYER)	
Full Traffic	1 Hour
Full Traffic & Chemical Cure	2 - 3 hours



*Assumes concrete compressive strength is greater than 25 N/mm²

Deckshield ED Rapide

Deckshield ED Rapide is a MMA 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:

MMA resin speeds up cure time, reducing construction schedules.



Attractive:

Brightens up dull, dark and musty car park environments.



Hard-wearing:

Lengthens the car park's lifecycle and minimises future reinstallation costs.



Resistant:

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



Technical Profile

RESISTANCE TO CHLORIDE IONS

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

No chloride ion penetration after 28 days

BOND STRENGTH

Greater than cohesive strength of 25 N/mm² concrete.
> 1.5 MPa

FIRE RESISTANCE

EN 13501-1

C_{FL} - s1

SLIP RESISTANCE

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

Dry > 40, Wet depends on specification (in accordance with HSE & UKSRG guidelines)

ABRASION RESISTANCE (TOPCOAT)

Taber Abrader

300mg loss per 1000 cycles (1kg load using CS17 wheels)

CRACK BRIDGING

BS EN 1062-7 Method A, Table 6

Class A3 (-20°C)

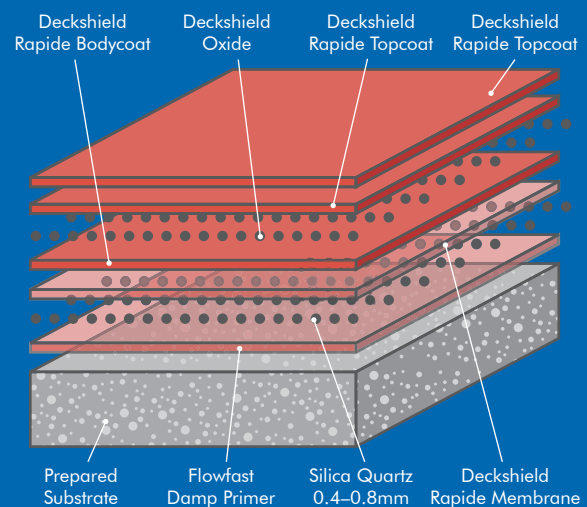
SPEED OF CURE (PER LAYER)

Full Traffic

1 Hour

Full Traffic & Chemical Cure

2 - 3 hours



*Assumes concrete compressive strength is greater than 25 N/mm²



Chemical Resistance

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



Flowcoat SF41 Composite

A high performance, solvent free, chemical resistant, high-build epoxy coating system for industrial facilities, back of house and loading/unloading areas.

Graded aggregate can be used to create a slip resistant profile if required.



Chemical Resistant:

Protects against a range of chemicals used in manufacturing processes.



Solvent Free:

Solvent free, low in VOCs and environmentally friendly.



Hygienic & Easy to Clean:

The seamless and gloss finish allows the system to be cleaned easily.



Hard-Wearing:

Hard-wearing & abrasion resistant suitable for medium and heavy duty traffic areas.



Ivory

Yellow

Steel Blue

Mid Blue



Light Green

Dark Green

Chilli Red

Light Grey



Steel Grey

Charcoal

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

Technical Profile

WATER PERMEABILITY

Karsten Test	Nil (Impermeable)
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TEMPERATURE RESISTANCE

Tolerant up to 60°C

BOND STRENGTH

Greater than cohesive strength of 25 N/mm² concrete.
> 1.5 MPa

FIRE RESISTANCE

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

BS 7976-2 (typical values for 4-S rubber slider)	Dry > 40, Wet depends on specification (in accordance with HSE and UKSRG guidelines)
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ABRASION RESISTANCE

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

Koenig Hardness Test	180 secs.
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COMPRESSIVE STRENGTH

BS 6319	> 60 N/mm ²
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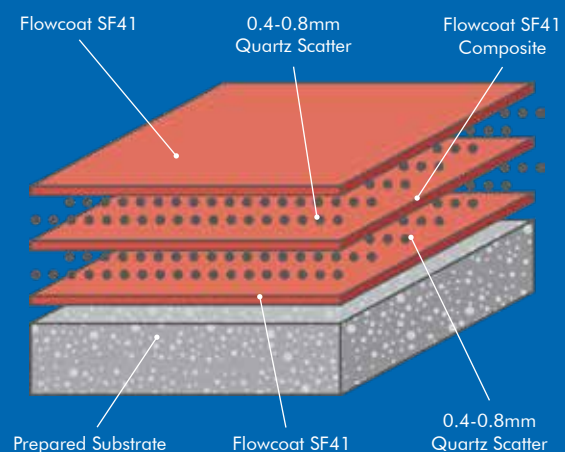
FLEXURAL STRENGTH

BS 6319	> 40 N/mm ²
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TENSILE STRENGTH

BS 6319	> 15 N/mm ²
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SPEED OF CURE	10°C	20°C	30°C
Light Traffic	48 h	24 h	18 h
Full Traffic	72 h	48 h	36 h
Full Chemical Cure	12 d	7 d	6 d



*Assumes concrete compressive strength is greater than 25 N/mm²



Refurbishment Solution Products

[illegible]



+852 2795 0478



www.flowcreteasia.com



hongkong@tremcocpg.com

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