



Specialist Resin Flooring Systems for:

## PHARMACEUTICAL FACILITIES

- ✓ Production Plants
- ✓ Laboratories & Clean Rooms
- ✓ Chemical Storage Areas
- ✓ Process Areas

# Welcome to Flowcrete UK

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A critical consideration in the design and construction of pharmaceutical facilities is the flooring used to protect the different operational areas found within. Pharmaceutical brands require floor and wall systems that meet strict hygiene and safety protocols of Good Manufacturing Practice (GMP).

Whether found in production suites, assembly lines or research and development laboratories, flooring materials must offer a wealth of performance characteristics including excellent abrasion, chemical and impact resistance, the ability to withstand extreme temperature swings and provide an easily cleaned, smooth and hygienic finish.

Flowcrete UK offers a complete package of specialty epoxy, polyurethane, MMA and vinyl ester resin floor and wall systems designed to cater for all areas within pharmaceutical facilities. As well as an extensive range of sub floor screeds and substrate treatments in order to ensure the integrity of the final floor finish.

## Application Suitability

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Production Plants



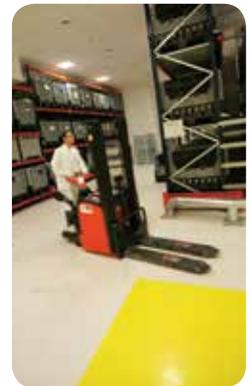
Assembly Lines



Laboratories



Chemical Storage Areas



Packaging & Warehousing



Corridors & Stairwells



Maintenance & Storage



Gowning Rooms & Airlocks



Rest Rooms & Administrative Areas



Multi-Story Parking Facilities

For the application suitability of each system, look out for the check mark symbol throughout the brochure.

Flowcrete Flowfresh materials contain Polygiene®, a silver ion antimicrobial additive designed to offer enhanced hygiene underfoot.

## Polygiene® Antimicrobial Effectiveness



SARS-CoV	✓
Salmonella Typhi	✓
MRSA	✓
Enterococcus Faecalis	✓
E-coli	✓
Staphylococcus Aureus	✓
Listeria	✓
Streptococcus Pyogenes	✓
C.difficile	✓
Pseudomonas Aeruginosa	✓
Proteus Vulgaris	✓
Campila Bacta	✓



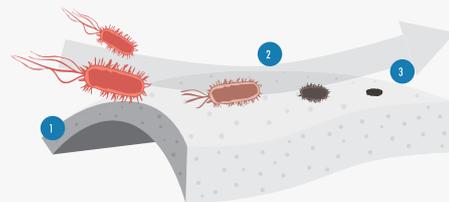
## GMP Compliant Epoxy, Polyurethane & MMA Flooring

Pharmaceutical production facilities require smooth floors, walls and ceilings, free from cracks and open joints that reduce the risk of contamination or bacteria build-up while at the same time ensure a safe, non-slip profile underfoot. According to 'The Rules Governing Medicinal Products in the European Union' the internal surfaces should permit an easy and effective cleaning and, if necessary, disinfection.

Resin flooring systems, including epoxy, polyurethane and MMA systems, ensure a non-porous, smooth and seamless surface where there is nowhere for bacteria or mould spores to grow and are appropriate for GMP installations.

Flowcrete UK's HACCP International certified and ISO 22196 compliant polyurethane floor screed materials offer enhanced protection with the inclusion of Polygiene®, a silver-ion antimicrobial agent, designed to protect the surface from degradation caused by microbial growth.

### How Does Polygiene® Work?



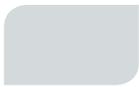
- 1 The silver ions are distributed throughout the floor.
- 2 The silver ions migrate to the surface.
- 3 They inhibit bacteria growth by penetrating the cell membrane.

## Flowseal EPW (0.12mm)

Flowseal EPW provides a coloured, gloss or matt finish at ground level in areas of light traffic. The water based seamless floor sealer can be applied onto damp substrates and is vapour permeable, allowing floors in light processing areas and storerooms to breathe.\*

MAINTENANCE AND LIGHT PRODUCTION AREAS

### Standard Colours



Light Grey  
232



Beige  
326



Goosewing Grey  
222



Tile Red  
637



Mid Grey  
280



Forest Green  
754



Dark Grey  
281



Traffic Blue  
466



### TEMPERATURE RESISTANCE

Tolerant of sustained temperatures up to 70°C

### VAPOUR PERMEABILITY

ASTM:E96:90

20g/m<sup>2</sup>/mm/24hr

### SLIP RESISTANCE

BS 7976-2

Dry >40  
Low slip potential



\*Flowseal ESD EPW is also available for electrostatic dissipation. Please contact your local Flowcrete representative for further information. A full technical profile is available at [www.flowcrete.co.uk](http://www.flowcrete.co.uk)

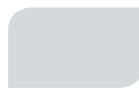


## Flowcoat SF41 (0.35mm)

A high performance, solvent free epoxy resin coating that can deliver an anti-slip profile by inclusion of graded aggregate between coats. Flowcoat SF41 is also hard wearing against sustained forklift traffic, as well as chemical and abrasion resistant.\*

CHEMICAL AND EQUIPMENT STORAGE AREAS

### Standard Colours



Light Grey  
232



Beige  
326



Goosewing Grey  
222



Tile Red  
637



Mid Grey  
280



Forest Green  
754



Dark Grey  
281



Traffic Blue  
466

### SLIP RESISTANCE

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

Dry >40

### WEAR RESISTANCE

EN 13892-5

Abrasion quantity <1 cm<sup>2</sup>

### IMPACT RESISTANCE

EN ISO 6272

10 N/m



\*Flowcoat CR is available for additional chemical resistance. Please contact your local Flowcrete representative for further information. A full technical profile is available at [www.flowcrete.co.uk](http://www.flowcrete.co.uk)

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



Flowcrete UK's materials are resistant to a wide range of aggressive chemicals and temperatures up to 165°C.

## Flowshield SL (2mm)

Flowshield SL delivers a glossy, hygienic, hard wearing and self-smoothing floor finish. Suited to use in areas subject to medium to heavy duty foot, trolley, pallet truck and rubber wheeled forklift traffic.\*

PRODUCTION AREAS AND LABORATORIES

### Standard Colors



Light Grey  
232



Beige  
326



Goosewing Grey  
222



Tile Red  
637



Mid Grey  
280



Forest Green  
754



Dark Grey  
281



Traffic Blue  
466



#### SURFACE HARDNESS

EN 13892-6 >400 N/mm<sup>2</sup>

#### IMPACT RESISTANCE

EN ISO 6272 15Nm

#### COMPRESSIVE STRENGTH

EN 13892-2 55 N/mm<sup>2</sup>



\*Flowshield ESD SL is also available for electrostatic dissipation. Please contact your local Flowcrete representative for further information. A full technical profile is available at [www.flowcrete.co.uk](http://www.flowcrete.co.uk)

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

Flowcrete UK's materials offer a seamless, smooth finish that is easily cleaned and does not allow the collection of dust in line with GMP regulations.



## Peran Comfort (2-3mm)

A matt, self-smoothing flexible polyurethane resin floor finish, Peran Comfort has enhanced resistance to UV light and offers sound dampening properties. Ideal for a minimalist, modern, and contemporary environment and areas with intensive pedestrian traffic such as offices.

ADMINISTRATIVE AREAS

### Standard Colours



Signal White



Pebble Grey



Light Grey



Oyster White



#### ELONGATION AT BREAK

DIN 53504	50- 100%
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#### WEAR RESISTANCE

EN 13892-4	Max. wear depth <100µm
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#### SLIP RESISTANCE

BS 7976-2	Dry >40 Low slip potential
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Applied colours may differ from the examples shown. For a full technical profile, colour chart and samples, contact your local Flowcrete office.

## Peran STB Compact (3mm)

Peran STB Compact is a hard wearing, decorative resin floor topping made up of colour stable quartz granules encapsulated in a clear resin binder. Peran STB Compact is a fast application scatter and power trowel system with a matt finish.\*

PRODUCTION, MAINTENANCE AND STORAGE AREAS

### Standard Colors



Biscuit  
102



Light Grey  
701



Beige  
101



Mid Grey  
702



Grass Green  
601



Dark Grey  
703



Mid Blue  
501



Black  
901



#### IMPACT RESISTANCE

EN ISO 6272	15Nm
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#### WEAR RESISTANCE

EN 13892-5	Abrasion quantity 1cm <sup>3</sup>
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#### COMPRESSIVE STRENGTH

EN 13892-2	>40 N/mm <sup>2</sup>
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\*Peran ESD STB Compact is also available for electrostatic dissipation.



\*Peran STB Classic and Wet areas specifications are also available.

Please contact your local Flowcrete representative for further information. A full technical profile is available at [www.flowcrete.co.uk](http://www.flowcrete.co.uk)



## Flowshield FX (2-3mm)

A solvent-free, self-smoothing, epoxy resin, combined with decorative coloured particles. This hard wearing system is available in a matt or silk finish and provides excellent abrasion, UV and chemical resistance.

CORRIDORS AND ADMINISTRATIVE AREAS

### Standard Colors



White  
SF57



Signal Grey  
SF35



Pigeon Blue  
SF38



Moss Grey  
SF31



Black  
SF56



Grey Beige  
SF26



Dusty Grey  
SF34



Quartz Grey  
SF36

#### WEAR RESISTANCE

EN ISO 5470-1	< 3000mg
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#### SHORE D HARDNESS

DIN 53505	Approx. 90
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#### SLIP RESISTANCE

BS 7976-2	Dry >40 Low slip potential
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Applied colours may differ from the examples shown. For a full technical profile, colour chart and samples, contact your local Flowcrete office.



## Flowfast Quartz (4mm)

A hard wearing, decorative and very fast curing MMA flooring system that delivers a decorative matt finish. Flowfast Quartz consists of durable colour stable quartz granules encapsulated in a clear resin binder and delivers a fully trafficable surface just 60 minutes from application.\*

LABORATORIES, GOWNING ROOMS AND AIRLOCKS

### SPEED OF CURE

Walk on	1 hour
Full traffic & chemical cure	2-3 hours

### COMPRESSIVE STRENGTH

EN 13892-2	60 N/mm <sup>2</sup>
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### SLIP RESISTANCE

BS 7976-2	Dry >40 Low slip potential
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\*Flowfast Quartz Structure/Wet areas is also available. Please contact your local Flowcrete representative for further information. A full technical profile is available at [www.flowcrete.co.uk](http://www.flowcrete.co.uk)

## Standard Colors



Biscuit  
102



Light Grey  
701



Beige  
101



Mid Grey  
702



Grass Green  
601



Dark Grey  
703



Mid Blue  
501



Black  
901

## Flowfresh SL & MF (2, 4-6mm)

Flowfresh SL and MF are medium duty chemically resistant, antimicrobial treated polyurethane resin finishes. The non-tainting, non-dusting surface provides an easy-to-clean surface with impressive durability under traffic and heavy plant machinery.\*

WET AND DRY PRODUCTION AREAS

## Standard Colors



Cream



Ochre



Red



Mustard



Mid Grey



Dark Grey



Dark Green



Blue



### TEMPERATURE RESISTANCE

Tolerant to intermittent spillages up to 70°C or sustained heat from -20°C to 60°C

### COMPRESSIVE STRENGTH

EN 13892-2	55 N/mm <sup>2</sup>
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### IMPACT RESISTANCE

EN ISO 6272	15 Nm
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\*Flowfresh SR is also available for slip resistance. Please contact your local Flowcrete representative for further information. A full technical profile is available at [www.flowcrete.co.uk](http://www.flowcrete.co.uk)

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

# Flowchem VE

Exposure to concentrated acids, alkalis, aggressive solvents and extreme heat can lead to severe degradation of the floor and wall coverings in any chemical processing environment, as well as metal walkways and structures and tank linings.

Flowcrete's unique shrinkage compensated Flowchem range of vinyl ester resins has been engineered to support the toughest of environments, offering first class resistance to most corrosive agents and delivering exceptional protection against their potentially irreparable damage even at high temperatures.

With a variety of systems to protect concrete floors and walls as well as metal structures the Flowchem VE range ensure a reliable and easily maintained finish.

What's more, with insulation, isolation and electrostatic performance benefits, the Flowchem VE range delivers the ultimate in antistatic corrosion protection to take on the chemical processing industries.

- ✓ Aggressive Production Areas
- ✓ Tank Farms
- ✓ Chemical Processing
- ✓ Primary and Secondary Storage
- ✓ Waste Processing
- ✓ Water Treatment

## Performance Benefits

✓	Exceptional chemical resistance*
✓	Shrinkage compensated to reduce stress
✓	Withstands temperatures up to 185°C
✓	Coatings can be applied to a range of substrates
✓	Vertical systems available for tanks and silos
✓	Abrasion and impact resistant
✓	Withstands thermal shock
✓	Antistatic grades available to protect against shock
✓	UV resistant
✓	Fast cure systems minimise downtime

\* A detailed chemical resistance chart is available upon request for all Flowchem VE systems. Please contact your local Technical Department for further assistance.

# Deckshield ID (2-3mm)

Deckshield ID is a flexible, solvent free polyurethane car park deck coating system for intermediate decks of multi storey structures. Deckshield ID cosmetically enhances and reduces noise, making multi storey car parks brighter, safer environments to visit.\*

PARKING STRUCTURES AND LOADING AREAS

## Standard Colors



Forest Green



Mid Grey



Dark Grey



Tile Red



Traffic Purple



Traffic Blue



### TEMPERATURE RESISTANCE

Softens over 70°C, hardens on cooling

### IMPACT RESISTANCE

EN ISO 6272-1

Class II:  $\geq 10$  Nm

### ABRASION RESISTANCE

EN ISO 5470-1

Weight loss <3000mg using H22 wheel, 1000 cycles, load 1000g



\*Fast cure MMA grade is also available.

Please contact your local Flowcrete representative for further information. A full technical profile is available at [www.flowcrete.co.uk](http://www.flowcrete.co.uk)

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



Flowcrete UK also manufactures a range of wall coatings and coving mortars to provide a hygienic transition between the floor and wall.



## Mondéco TZ (7mm)

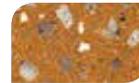
A seamless antimicrobial polyurethane terrazzo floor finish that is resistant to high temperatures and steam cleaning. Ideal for industrial applications such as chemical and pharmaceutical processing areas where floors are subject to hot fluid spillages, heavy traffic, impact and aggressive cleaning agents.\*

PROCESSING AREAS

### Standard Colors



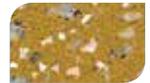
Cream



Mustard



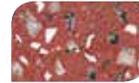
Dark Green



Ochre



Mid Grey



Tile Red

#### TEMPERATURE RESISTANCE

Tolerant to intermittent spillages up to 120°C or sustained heat from -40°C to 105°C

#### IMPACT RESISTANCE

EN ISO 6272

20 Nm

#### SLIP RESISTANCE

BS 7976-2

Dry >40



\*Mondéco ESD TZ is also available for electrostatic dissipation. Please contact your local Flowcrete representative for further information. A full technical profile is available at [www.flowcrete.co.uk](http://www.flowcrete.co.uk)

## Mondéco Earth (7–8mm)

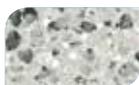
Mondéco Earth is a decorative epoxy terrazzo floor finish containing granite and flint aggregates. Providing a highly resistant surface, this system is suitable for use in pharmaceutical production areas as well as in the healthcare industry, where hygiene and durability are of key concern.\*

PRODUCTION AREAS

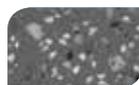
### Standard Colors



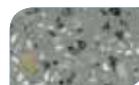
Provence



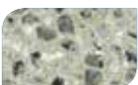
Coconut



Dusty Grey



Agate Grey



Oyster White



Chilli Pepper



#### TEMPERATURE RESISTANCE

Tolerant of sustained temperatures up to 60°C

#### COMPRESSIVE STRENGTH

EN 13892-2

>55 N/mm<sup>2</sup>

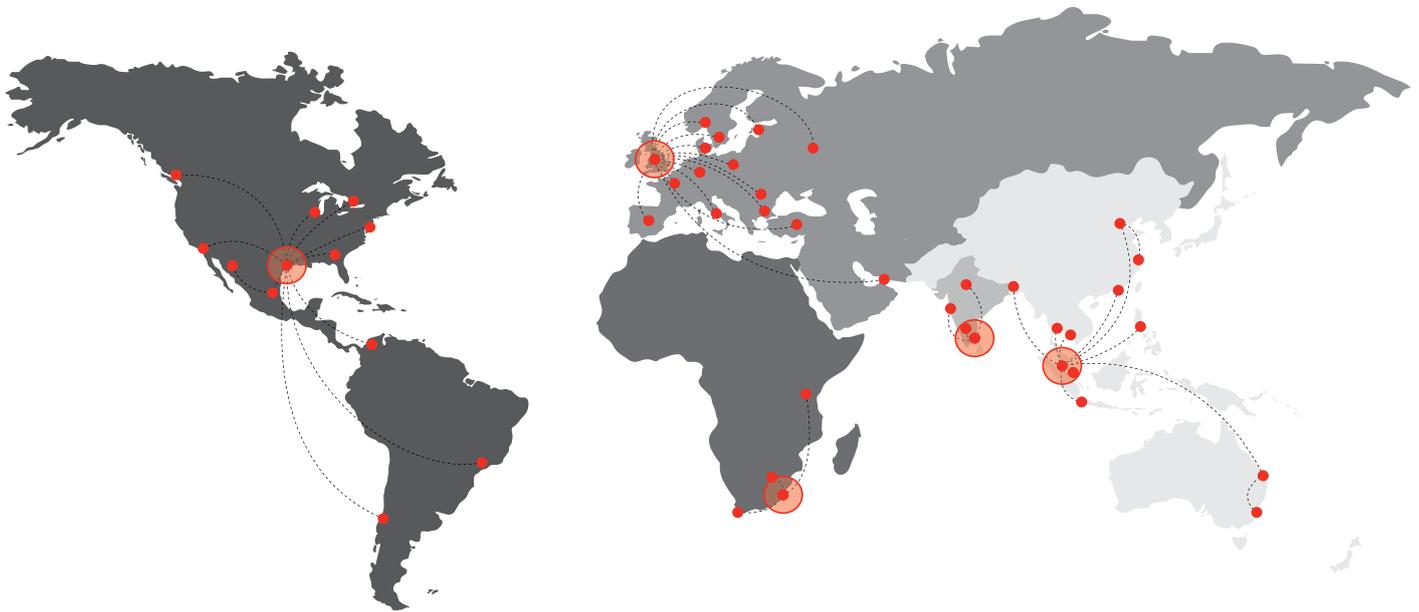
#### IMPACT RESISTANCE

EN ISO 6272

16Nm



\*Mondéco ESD Earth is also available for electrostatic dissipation. Please contact your local Flowcrete representative for further information. A full technical profile is available at [www.flowcrete.co.uk](http://www.flowcrete.co.uk)



## Flowcrete Group

Flowcrete Group is the world's leading specialist in seamless resin floor, wall and coving solutions as well as other specialist coating technologies with operations on six continents.

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