



# **FLOWFRESH**

HACCP International certified antimicrobial cementitious polyurethane floor coating systems, ideal for use in areas where hygiene is critical.

www.flowcretesa.co.za

# Flowfresh Range Technical Profile





Flowfresh represents a new generation of highperformance antibacterial flooring. Created in partnership with Polygiene®, Flowfresh harnesses natural silver to inhibit the growth of most types of harmful bacteria.

Silver is a natural element known for its ability to purify and protect from bacterial infections – and provides an attractive, environmentally friendly alternative to chemically manufactured antimicrobials.

HACCP International certified as safe for use in food processing environments, Flowfresh offers total protection. A continuous migration of silver ions are delivered to the contact surface from where they attack gram positive and gram negative bacteria and viruses. This technology remains active for the lifetime of the floor, even when damaged or worn unlike coatings or surface treatments.

Flowfresh meets the ISO 22196 standard of evaluating the antimicrobial activity of antimicrobial treated plastics and other non-porous surfaces.



# **Application Suitability**

Meat

& Fish



Food & Beverage



Bakeries & Confectionery



Food Preparation & Kitchens



Hospitals & Healthcare



Pharmaceutical Environments

**Resistance Chart** 

BACTERIAL RESISTANCE			CHEMICAL RESISTANCE*				
MRSA	<b>√</b>	Salmonella Typhi	<b>√</b>	Hydrochloric Acid	<b>√</b>	Methanol	<ul> <li>Image: A start of the start of</li></ul>
E-coli	1	Enterococcus Faecalis	<b>√</b>	Sulphuric Acid	<b>~</b>	Sugar Syrups	×
Listeria	×	Staphylococcus Aureus	<b>√</b>	Citric Acid	✓	Caustic Soda	×
C.difficile	<b>v</b>	Streptococcus Pyogenes	<b>√</b>	Acetic Acid	✓	Petrol	<b>√</b>
Proteus Vulgaris	~	Pseudomonas Aeruginosa	<b>√</b>	Lactic Acid	✓	Oil Ingredients	<ul> <li>Image: A second s</li></ul>
		Campila Bacta	<b>√</b>	Phosphoric Acid	✓	Detergents	✓

\*A chemical resistance chart is available on request.

# **Complementary Products**

	DESCRIPTION	USES
Flowprime	A 2-component low viscosity epoxy resin primer for cementitious substrates.	Applied to screeds prior to overcoating with resin floor finishes.
Flowfresh Primer	A 3-component, polyurethane scratch coat/primer for concrete and cementitious substrates. Flowfresh Primer will bond to surface dry substrates that have a Relative Humidity up to 97% (to BS 8204).	For priming concrete and screeds, prior to overcoating with the Flowfresh flooring system.
Flowfresh Coating	A 4-component water based polyurethane coating.	Used as a sealer coat from Flowfresh WR or as an alternative sealer for Flowfresh HF.
Super Satin	A 2-component waterborne polyurethane formulated to provide an ultra-durable clear coating with a matt finish.	Used as a sealer coat where a matt finish is essential.
STB Sealcoat	A 2-component epoxy sealer with good UV stability.	Used as a UV stable sealer for flake and quartz broadcast systems. Or as a concrete coating with high abrasion & wear resistance.
Hydraseal DPM	A 2-component, solvent-free, epoxy resin primer for damp cementitious substrates with a Relative Humidity up to 100% (BS 8204).	Used as a primer for very damp substrates (with no visible surface moisture) where other primers are not suitable.
A single component moisture cured           polyurethane joint sealant.		To strengthen and protect limited movement floor joints.

# **Joint Details**



Flowfresh System Flowflex Joint Sealant Anchor Point

# Typical Drainage Channel Arrangement



Flowfresh System Flowflex Joint Sealant Anchor Point Trough and Grid Assembly Bedding Screed Concrete

# Typical (expansion) Movement Joint



Flowfresh System Flowflex Joint Sealant Anchor Point **Backing Material** Joint Filler Concrete

# Typical Floor to Wall Detail



Bird's Beak Wall Anchor Point - Flowfresh HF Cove - Flowfresh System Concrete

# Flowfresh SL & MF (2-4mm)

# Smooth, matt polyurethane screeds for use in dry areas subject to light-medium traffic.

Best suited to packaging areas and processing zones subject to light-medium foot and wheeled traffic, these trowel applied systems deliver a seamless joint-free finish.



# **Chemical Resistant:**

Protects against the majority of acids used in manufacturing processes.



### Abrasion Resistant:

Holds its own against impact, traffic and chemical attack.



# Hygienic:

Contains Polygiene<sup>®</sup> - an antimicrobial additive that kills up to 99.9% bacteria.



Minimal joints makes this flooring easy to sterilise.



# Low Odour:

Improved air quality during installation and beyond.

# Colours



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

# **Technical Profile**

### THICKNESS

2mm (SL) 3–4mm (MF)

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# FIRE RESISTANCE

BS476-7

### **TEMPERATURE RESISTANCE**

5°C to 65°C (SL) -5°C to 70°C (MF @ 3mm), -15°C to 90°C (MF @ 4mm)

Class 2

Nil (Impermeable)

Dry >70 Wet >25

>50 N/mm<sup>2</sup>

>12 N/mm<sup>2</sup>

### WATER PERMEABILITY

Karsten Test

### SLIP RESISTANCE

TRRL Pendulum Slip Test

COMPRESSIVE STRENGTH

BS6319

FLEXURAL STRENGTH

BS6319 >20 N/mm<sup>2</sup>

### TENSILE STRENGTH

BS6319

**BOND STRENGTH** 

>1.5 MPa\*

# COEFFICIENT OF THERMAL EXPANSION

ASTM C531 5.70 × 10<sup>-5</sup> °C<sup>-1</sup>

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





# Application Suitability

Light - Medium Traffic 2 mm	✓
Medium - Heavy Traffic 4-6 mm	✓
Industrial Kitchens / Semi Dry Areas	~
Packaging Areas	✓
Loading Bays	✓
Laboratories / Quality Control	✓
Dispensaries	✓
Cold Stores / Freezers	





# Application Suitability

Dry Process (Med/Heavy Traffic)	✓
Wet Process (Med/Heavy Traffic)	✓
Industrial Kitchens / Wash Areas	✓
Packaging Areas	
Chemical / Solvent Stores	✓
Loading Bays	✓
Laboratories / Quality Control	
Dispensaries	
Cold Stores / Freezers	✓

# Flowfresh RT (6-9mm)

# A slip-resistant polyurethane screed for use in wet areas subject to high volumes of traffic.

Best suited to wet processing zones subject to high volumes of foot and wheeled traffic, this trowel applied 6–9mm system delivers a seamless joint-free matt finish.



# Heat Resistant:

Resistant to temperatures of up to 120°C.



# Slip Resistant:

Impressive anti-slip profile in dry and wet conditions.



# Hygienic:

Contains Polygiene<sup>®</sup> - an antimicrobial additive that kills up to 99.9% bacteria.



Protects against the majority of acids used in manufacturing processes.

# ""

# Durable:

Holds its own against impact as well as heavy traffic.

# Colours



# (6–9mm)

THICKNESS 6–9mm **FIRE RESISTANCE** BS476-7 Class 2 TEMPERATURE RESISTANCE -25°C to 100°C (@ 6mm), -45°C to 120°C (9mm) WATER PERMEABILITY Karsten Test Nil (Impermeable) **SLIP RESISTANCE** TRRL Pendulum Slip Test Dry >80 , Wet >35 **COMPRESSIVE STRENGTH** BS6319 >60 N/mm<sup>2</sup> **FLEXURAL STRENGTH** BS6319 >20 N/mm<sup>2</sup> TENSILE STRENGTH BS6319 >10 N/mm<sup>2</sup> **BOND STRENGTH** >1.5 MPa\* **COEFFICIENT OF THERMAL EXPANSION** ASTM C531  $3.74 \times 10^{-5} \,{}^{\circ}\text{C}^{-1}$ 

**Technical Profile** 

SPEED OF COKE	IU C	20 C	30 C
Light Traffic	36 hrs	24 hrs	12 hrs
Full Traffic	72 hrs	48 hrs	24 hrs
Full Chemical Cure	10 days	7 days	6 days



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

# Colours



Dusty Grey

Light Blue

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

# **Technical Profile**

	FIRE RESISTANCE			
BS476-7	i-7 Class 2			
TEMPERATURE RESISTANCI	E			
Intermittent Spillages: Up to 100°C Constant Heat: Up to 90°C				
WATER PERMEABILITY				
Karsten Test	Nil (Impermeable)			
ABRASION RESISTANCE				
ASTM D4060 Taber Abrader (1kg load using H22 wheels)	25mg loss per 1000 cycles			
SPEED OF CURE	10°C	20°C	30°C	
Light Traffic	36 hrs	24 hrs	12 hrs	
Full Traffic	72 hrs	48 hrs	24 hrs	
Full Chemical Cure	10 days	7 days	6 days	

# Flowfresh WR (6-9mm)

Used for coving and wall rendering, Flowfresh WR is an antimicrobial, chemical resistant polyurethane.

The fine textured finish provides an attractive speckled finish while delivering high performance in wet or dry heavy duty food and beverage production environments.



Contains Polygiene® for hygiene



Resistant to hot steam cleaning

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Impressive chemical resistance

Durable against impact and abrasion

# **Technical Profile**

FIRE RESISTANCE			
BS476-7	Class 2		
TEMPERATURE RESISTANCE			
Up to 90℃			
WATER PERMEABILITY			
Karsten Test	Nil (Impermeable)		
SLIP RESISTANCE			
TRRL Pendulum Slip Test	Dry >56 Wet >45 (dependent on aggregate)		
COMPRESSIVE STRENGTH			
BS6319	>50 N/mm²		
FLEXURAL STRENGTH			
BS6319	>20 N/mm <sup>2</sup>		
TENSILE STRENGTH			
BS6319	>10 N/mm <sup>2</sup>		

# Flowfresh Flakes (4mm)

# Flowfresh Flakes is a decorative finish that provides an attractive yet highly functional floor.

The flaked finish is ideally suited to front-ofhouse and commercial environments where hygiene is critical.



Contains Polygiene® for hygiene



Decorative, flaked aesthetic

Slip, chemical and abrasion resistant

High performance, durable finish

# Colours



Domino







Cobb

Desert Tan



Green Bay

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



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# **Technical Profile**

BS476-7	Class 2		
TEMPERATURE RESISTAN	CE		
Intermittent Spillages: Up to Constant Heat: Up to 75°C	100°C		
SLIP RESISTANCE			
BS 6677-1 Pendulum Slip Test	Dry 100 Wet 70		
ABRASION RESISTANCE	·		
ASTM D4060 Taber Abrader (1kg load using H22 wheels)	25mg lo	ss per 100	)0 cycles
SPEED OF CURE	10°C	20°C	30°C
Light Traffic	20 hrs	14 hrs	12 hrs
Full Traffic	24 hrs	18 hrs	12 hrs
Full Chemical Cure	7 days	5 days	5 days

# Flowfresh SR (4–5mm)

# A high performance polyurethane system, incorporating a unique antimicrobial additive.

Flowfresh SR delivers a durable surface underfoot that resists intermittent temperatures of up to 122°C for an easy-to-clean, hygienic finish underfoot.



Contains Polygiene® for hygiene

Freeze/thaw resistant

Resistant to chemicals and traffic

Fast return to service

# Technical Profile

### FIRE RESISTANCE BS476-7 Class 2 TEMPERATURE RESISTANCE Intermittent Spillages: Up to 100°C Constant Heat: Up to 75°C WATER PERMEABILITY Karsten Test Nil (Impermeable) **SLIP RESISTANCE** BS 6677-1 Dry 100 Wet 7<u>0</u> Pendulum Slip Test ABRASION RESISTANCE ASTM D4060 25mg loss per 1000 cycles Taber Abrader (1kg load using H22 wheels)

SPEED OF CURE	10°C	20°C	30°C
Light Traffic	20 hrs	14 hrs	12 hrs
Full Traffic	24 hrs	18 hrs	12 hrs
Full Chemical Cure	7 days	5 days	5 days

# Flowfresh SRQ (4-5mm)

# An attractive coloured quartz system developed with tough and durable polyurethane hybrid technology.

Containing Polygiene®, Flowfresh SRQ is ideally suited to the food & beverage industry, including kitchens, manufacturing facilities and other heavy duty environments.



Contains Polygiene® for hygiene



Thermal shock resistant

Withstands high mechanical stress



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



# Application Suitability

Dry Process (Med/Heavy Traffic)	
Wet Process (Med/Heavy Traffic)	
Industrial Kitchens / Wash Areas	
Packaging Areas	✓
Chemical / Solvent Stores	
Loading Bays	
Laboratories / Quality Control	✓
Dispensaries	✓
Cold Stores / Freezers	





# \*\* 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.

# Mondéco TZ (7 mm)

A high temperature resistant, steam cleanable polyurethane terrazzo finish, ideal for floors subject to hot fluid spillages.

Suited for pharmaceutical, food and chemical process areas where floors are subject to steam cleaning, heavy traffic and chemical attack.



# **Durable**:

The durable properties of this range ensure a longer floor life span.



### Hygienic:

Contains Polygiene® - an antimicrobial additive that inhibits the growth of most types of harmful bacteria.



# **Decorative**:

Offers an attractive finish to enhance the working environment.



### Heat Resistant:

Resistant to temperatures of up to 120°C.



### **Chemical Resistant:**

Protects against the majority of acids used in manufacturing processes.



# Slip Resistant:

Impressive anti-slip profile in dry and wet conditions.

# Colours





Ochre



Mid Grey



Tile Red

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

From -40°C to 105°C (sustained dry heat) Up to 120°C (intermittent spills)

### WATER PERMEABILITY

Karsten Test	Nil-Impermeable			
FIRE RESISTANCE				
EN 13501-1	B <sub>fi</sub> -s1			
SLIP RESISTANCE				
BS 7976-2	Dry >40 low slip potential			
COMPRESSIVE STRENGTH				
EN 13892-2	>55 N/mm²			

>2.0 N/mm<sup>2</sup>

Max. wear depth < 50  $\mu$ m

# EN 13892-2

**BOND STRENGTH** 

EN 13892-8

### WEAR RESISTANCE

EN 13892-4

# VAPOUR PERMEABILITY

2 g / m² / 8mm / 24 hr

SPEED OF CURE**	10°C	20°C	30°C
Light Traffic	24 hrs	16 hrs	10 hrs
Full Traffic	72 hrs	48 hrs	36 hrs
Full Chemical Cure	12 days	7 days	7 days



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





# **Flowcrete**

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