



Food Industry



Meat Processing



Bakerie



Fish Processing



Drinks Industry



Pharmaceutica

FLOWFRESH - antimicrobial flooring



WELCOME TO FLOWCRETE for the world at your feet

Flowcrete's commitment to exceptional design, technical support and advisory services from initial enquiries through to installation is at the heart of its business philosophy.

Our global success is driven by our commitment to excellence; excellence in products, excellence in service and excellence in people.

With manufacturing plants across Europe, the Americas, Asia and Africa - and specialist flooring designer and manufacturer.



A FRESH APPROACH to flooring



Flowfresh represents a new generation of performance antimicrobial flooring based on the use of silver in partnership with polygiene.

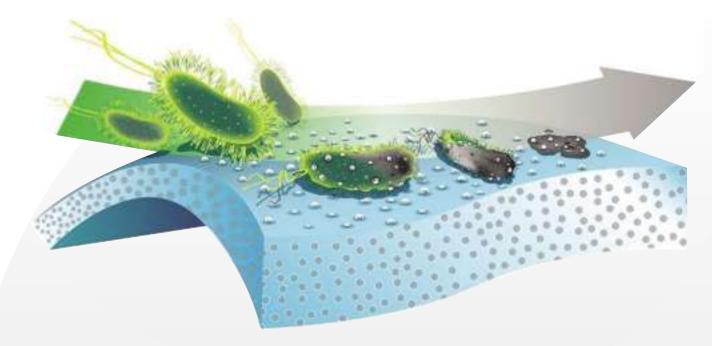
The science is based on an amino compound constantly emitting ions of silver that kills bacteria which settle on the floor and continues to be active for the life time of the floor.

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

It offers total protection. A continuous migration of silver ions delivered to the contact surface from where they attack gram positive and gram negative bacteria and viruses.

The process remains active through the lifetime of the floor, even when damaged or worn, unlike coatings or surface treatments.

Polygiene[®] technology - killing microbes on contact



ELECTRICAL RESISTANCE (ESD GRADES IN HF, MF AND TZ)

- F-coli
- ✓ Staphylococcus Aureus
- ✓ MRSA
- ✓ Proteus Vulgaris
- ✓ Listeria Weshimen
- ✓ Pseudomonas Aeruginosa
- ✓ Salmonella Typhi
- ✓ Streptococcus Pyogenes
- ✓ Enterococcus Faecalis
- ✓ SARS Coronousitus



We design and supply floors that can cope with all the rigours of the food and drink sector – and offer choice in the specification process to ensure the right solution for individual environments.

Different systems can offer the ability to withstand daily rigours such as falling bottles, wheeled traffic, food spills, chemical leaks and everything else the industry throws at it - even sugar.

For thirty years, Flowcrete floors have been installed across the sector - in meat processing areas, dairies, kitchens zones and within both wet and dry processing zones.

To further enhance their performance in strict hygiene controlled environments, Flowcrete's range of polyurethane flooring systems incorporate Polygiene® - performance silver based antimicrobial which inhibits the growth of bacteria, fungi, moulds and mildew.

When used in food or pharmaceutical applications, Flowfresh provides effective anti-bacterial and anti-fungal protection, ensuring that the floor surface remains free of bacteria between cleaning cycles.



FLOWFRESH HF



SLIP RESISTANT POLYURETHANE SCREED

Description

Flowfresh HF is an 8mm trowel applied, heavy duty polyurethane resin screed, ideal for wet surfaces such as food preparation areas, and chemical processing plants.

Complies with FeRFA category: type 8

Benefits

- Very high chemical resistance
- Steam cleanable non dusting, non tainting



- Incorporates Polygiene® silver based
 - anti microbial additive
- Anti-slip surface
- Suitable for fork lift truck traffic
- Expert installation applied by trained and approved contractors

Application

Production Areas - Heavy traffic
Wet/spillage areas
Strong chemicals
Solvent stores
Steam cleaning

REFERENCE LIST

FOOD INDUSTRY PHARMACEUTICAL INDUSTRY

Lever Brothers Nestlé Pfizer **RHM**

Baxter Healthcare Mars

Fisher Bayer

Schering Plough Cadburys Glaxo Smith Kline Lyons Bakery

McVities

Fox's Biscuits

Bovril

Grants

Diageo

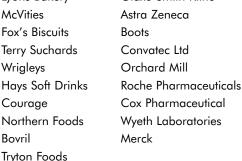
Coca Cola

Hazelwood Foods

Dalehead Foods

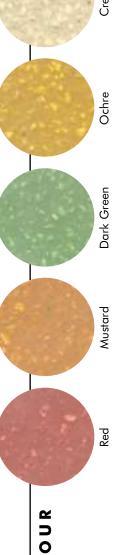
Terry Suchards Wrigleys

Courage Cox Pharmaceutical



FOR HEAVY TRAFFIC AREAS





S

Z

Ultramarine

Dark Grey

Mid Grey

TECHNICAL DATA PHYSICAL PROPERTIES Compressive Strength to BS6319 (N/mm²) >50 Flexural Strength to BS6319 (N/mm²) 20 10 Tensile Strength to BS6319 (N/mm²) Impact Resistance by BRE Screed Tester <0.5mm Temperature Resistance (°C) -40 to 110 Water absorption to Camden test TSSH008 Nil Electrical (surface) Resistivity to BS2050 Std Grade N/A <1.0x10⁸ ohms ESD Grade Abrasion Resistance by Taber (Loss per 1000 cycles in mg/1000g load). H22 Wheel to ASTM D4060 25mg Coefficient of Thermal Expansion to 1.7x10⁻⁵°C ASTM C531 Thermal Conductivity to BS874 W/m°C 1.20 Mixed Bulk Density 2.10 Adhesion to primed concrete by direct pull (N/mm²) >1.50 cohesive

MICROBIAL / FUNGAL CONTROL **BACTERIA** Staphylococcus aureus Salmonella choleraesuis Listeria welshimeri

concrete failure

100%

A.A.T.C.C. Test Method 147 - 1993: The inclusion of Polygiene® within the screed matrix of the industrial floor system ensures the permanency of this biocidal additive even in the event of excessive surface wear.

Polygiene steffective following ingestion by living bacteria, whereupon metabolic activity within the organism is arrested. Atrophy of the organism follows, when subsequent decay allows re-release of the Polygiene additive, so ensuring replenished activity at the floor surface.

CHEMICAL RESISTANCE SUMMARY

CONTACT INHIBITION

(comprehensive list available on request)	
Hydrochloric Acid 10%	✓
Sulphuric Acid	
25%	✓
Citric Acid	
10%	✓
Acetic Acid 5%	✓
Lactic Acid 10%	✓
Acetone	✓
Methanol	✓
Sugar Syrups	✓
Caustic Soda	✓
Petrol	✓
Oil	V
Detergents	V

Production Areas		
- Medium traffic - dry process		
- Heavy traffic - dry process		
- Wet /spillage areas	✓	
- Kitchens/Pot Wash areas	/	
- Packaging areas		
Warehouses		
- Loading bays		
Laboratories/Quality Control		
Dispensaries		
Cold Stores/Freezers		
Solvent/Chemical Stores	V	



FLOWFRESH MF





SELF SMOOTHING HEAVY DUTY POLYURETHANE TOPPING FOR MAXIMUM HYGIENE



Description

Flowfresh MF is a 4-6mm self-smoothing, heavy duty polyurethane topping with a matt finish, ideal for use in dry process, packaging and storage areas that are subject to light to medium traffic and occasional chemical spillage.

Complies with FeRFA category: type 7

Benefits

- Very high chemical resistance
- Easy to clean
- Matt finish
- Hygienic and safe incorporates
 Polygiene® anti microbial additive
- Excellent wear and impact resistance
- Expert installation applied by trained and approved contractors

Application

Production Areas - Medium traffic

- Strong chemicals

- Loading bays

Warehouses Laboratories Cold Stores



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FINIS

Dark Grey

Mid Grey

Cream

Ochre

Dark Green

Red

OLOUR



Lever Brothers

REFERENCE LIST

FOOD INDUSTRY

Nestlé RHM Mars Fisher Cadburys Lyons Bakery **McVities** Fox's Biscuits Terry Suchards Wrigleys Hays Soft Drinks Courage Northern Foods Bovril Tryton Foods Grants Coca Cola Hazelwood Foods

PHARMACEUTICAL INDUSTRY

Pfizer Baxter Healthcare Bayer Schering Plough Glaxo Smith Kline Astra Zeneca **Boots** Convatec Ltd Orchard Mill Roche Pharmaceuticals Cox Pharmaceutical Wyeth Laboratories Merck



www.flowcrete.com

TECHNICAL DATA

Compressive Strength to BS6319 (N/mm²)	> 50
Flexural Strength to BS6319 (N/mm²)	20
Tensile Strength to BS6319 (N/mm²)	10
Impact Resistance by BRE Screed Tester	< 0.5mm
Temperature Resistance (°C)	
Dry	-20 to 80
Wet	60 max
Water absorption to Camden	
test TSSH008	Nil
Surface Resistivity to BS2050	
Std Grade	N/A
ESD Grade	<1.0x10 ⁸ ohms
Abrasion Resistance by Taber (Loss per	
1000 cycles in mg/1000g load).	
H22 Wheel to ASTM D4060	30mg
Coefficient of Thermal Expansion to	
ASTM C531	1.4x10 ⁻⁵ °C
Thermal Conductivity to BS874 W/m°C	0.85
Mixed Bulk Density	1.95
Adhesion to primed concrete by direct	
pull (N/mm ²)	>1.50
	cohesive
	concrete failure

MICROBIAL / FUNGAL CONTROL

BACTERIA		
Staphylococcus aureus	✓	
Ecoli	V	
Salmonella choleraesuis	V	
Listeria welshimeri	V	
CONTACT INHIBITION	100%	

A.A.T.C.C. Test Method 147 - 1993:
The inclusion of Polygiene® within the screed matrix of the industrial floor system ensures the permanency of this biocidal additive even in the event of excessive surface wear.
Polygiene® is effective following ingestion by living bacteria, whereupon metabolic activity within the organism is arrested.

Atrophy of the organism follows, when subsequent decay allows re-release of the Polygiene® additive, so ensuring replenished activity at the floor surface.

CHEMICAL RESISTANCE SUMMARY

✓
✓
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Colours may vary due to the limitation in the printing process



FLOWFRESH SRQ



Description

Flowfresh SRQ is a 5 - 6mm heavy duty, chemical resistant antimicrobial treated polyurethane resin floor screed system, with an attractive and positively textured, coloured quartz floor finish. Ideal for wet processing zones such as food manufacturing, food preparation areas, and chemical processing plants.

Benefits

- Hygienic and safe incorporates Polygiene® - an anti microbial additive based on silver ion technology
- Very high chemical resistance
- Attractive decorative terrazzo finish
- Easy to clean
- High temperature resistance
- Expert rapid installation applied by trained and approved contractors
- Non-tainting, non-dusting High Abrasion Resistance, withstands mechanical stress Good alternative to expensive acid resistant tiles Low odour during application Positive slip resistance

HEAVY DUTY POLYURETHANE FOR MAXIMUM CLEANABILITY AND HYGIENE

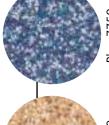




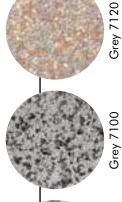
Application

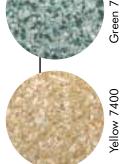
Production Areas - Heavy traffic

- Aesthetic requirements
- Strong Chemicals
- Wet processing













REFERENCE LIST

PHARMACEUTICAL INDUSTRY

Lever Brothers Pfizer Baxter Healthcare Bayer Schering Plough Glaxo Smith Kline Astra Zeneca **Boots** Convatec Ltd Orchard Mill Roche Pharmaceuticals Cox Pharmaceutical Wyeth Laboratories

FOOD INDUSTRY

KP Nuts Kellogs Sun Valley Foods Bernard Matthews **Boddingtons** Britvik Kraft Foods Nestlé Hells Kitchen



TECHNICAL DATA

Compressive Strength to BS6319 (N/mm²)	>50
Flexural Strength to BS6319 (N/mm²)	20
Tensile Strength to BS6319 (N/mm²)	10
Impact Resistance by BRE Screed Tester	<0.5mm
Temperature Resistance (°C)	
Dry	
Wet	
Water absorption to Camden	
test TSSH008	
Surface Resistivity to BS2050	
Std Grade	N/A
Abrasion Resistance by Taber (Loss per	
1000 cycles in mg/1000g load).	
H22 Wheel to ASTM D4060	25mg
Coefficient of Thermal Expansion to ASTM C531	
Thermal Conductivity to BS874 W/m°C	
Mixed Bulk Density	
Adhesion to primed concrete by direct	
pull (N/mm ²)	>1.50
	cohesive
	concrete failure

MICDORIAL / FUNGAL DESISTANCE

MICKODIAL / FUNGAL RESI	SIANCE
BACTERIA	
Staphylococcus aureus	✓
Escherichia coli	✓
Salmonella choleraesuis	✓
Listeria welshimeri	✓
CONTACT INHIBITION	100%

A.A.T.C.C. Test Method 147 - 1993: The inclusion of Polygiene® within the screed matrix of the industrial floor system ensures the permanency of this biocidal additive even in the event of excessive surface wear. Polygiene sieffective following ingestion by living bacteria, whereupon metabolic activity within the organism is arrested. Atrophy of the organism follows, when subsequent decay allows re-release of the Polygiene® additive, so ensuring replenished activity at the floor surface.

CHEMICAL RESISTANCE SUMMARY

Hydrochloric Acid 10%	/
Sulphuric Acid	
50%	~
Citric Acid	
30%	✓
Acetic Acid 5%	V
actic Acid 10%	V
Acetone	V
Methanol	V
Sugar Syrups	V
Caustic Soda	V
Petrol	✓
Oil	✓
Detergents	V

APPLICATION		
Production Areas		
- Medium traffic - dry process		
- Heavy traffic - dry process	~	
- Wet /spillage areas	/	
- Kitchens/Pot Wash areas	/	
- Packaging areas		
Warehouses		
- Loading bays		
Laboratories/Quality Control		
Dispensaries	✓	
Cold Stores/Freezers		
Solvent/Chemical Stores		
Battery Charging Areas		







Description

Mondéco TZ is a high temperature resistant, steam cleanable 8mm polyurethane terrazzo finish, ideal for pharmaceutical, food and chemical process areas, where the floor area is subjected to hot fluid spillage, steam cleaning, heavy traffic, impact and chemical attack.

Benefits

- Hygienic and safe incorporates Polygiene® - the anti microbial additive
- Very high chemical resistance
- Attractive decorative terrazzo finish
- Easy to clean
- High temperature resistance
- Expert installation applied by trained and approved contractors
- Antistatic grade available for dry powder processing areas

HEAVY DUTY POLYURETHANE TERRAZZO FOR MAXIMUM CLEANABILITY AND HYGIENE





Production Areas - Heavy traffic

- Aesthetic requirements
- Strong chemicals

Laboratories Clean rooms Tablet production



REFERENCE LIST

PHARMACEUTICAL INDUSTRY

Lever Brothers Boots
Pfizer Convatec Ltd

Baxter Healthcare Bayer

Astra Zeneca Roche Pharmaceuticals
Schering Plough Cox Pharmaceutical
Glaxo Smith Kline Wyeth Laboratories

Merck

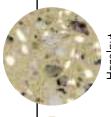


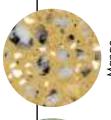
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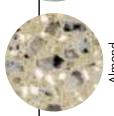












010

FOOD INDUSTRY

Nestlé Courage Northern Foods Cadburys Lyons Bakery **McVities** Fox's Biscuits Terry Suchards Wrigleys

RHM Mars Bovril Tryton Foods Grants Coca Cola Hazelwood Foods

TECHNICAL DATA

PHYSICAL PROPERTIES	
Compressive Strength to BS6319 (N/mm ²)	>55
Flexural Strength to BS6319 (N/mm ²)	>20
Tensile Strength to BS6319 (N/mm²) 8	
Impact Resistance by BRE Screed Tester	<0.5mm
Temperature Resistance (°C)	
Dry	-40 to 120
Wet	105 max
Water absorption to Camden	
test TSSH008	Nil
Surface Resistivity to BS2050	
Std Grade	N/A
A/S Grade	<1.0x10 ⁸ ohms
Abrasion Resistance by Taber (Loss per	
1000 cycles in mg/1000g load).	
H22 Wheel to ASTM D4060	25mg
Coefficient of Thermal Expansion to	
ASTM C531	1.7x10 ⁻⁵ °C
Thermal Conductivity to BS874 W/m°C	1.20
Mixed Bulk Density	2.10
Adhesion to primed concrete by direct	
pull (N/mm ²)	>1.50
	cohesive
	concrete failure

MICROBIAL / FUNGAL RESISTANCE

BACTERIA	
Staphylococcus aureus	✓
Escherichia coli	V
Salmonella choleraesuis	V
Listeria welshimeri	V
CONTACT INHIBITION	100%

A.A.T.C.C. Test Method 147 - 1993: The inclusion of Polygiene® within the screed matrix of the industrial floor system ensures the permanency of this biocidal additive even in the event of excessive surface wear. Polygiene $^{\circledast}$ is effective following ingestion by living bacteria, whereupon metabolic activity within the organism is arrested. Atrophy of the organism follows, when subsequent decay allows re-release of the Polygiene® additive, so ensuring replenished activity at the floor surface.

CHEMICAL RESISTANCE SUMMARY

(comprehensive list available on request)	
Hydrochloric Acid 10%	✓
Sulphuric Acid	
50%	V
Citric Acid	
30%	✓
Acetic Acid 5%	V
Lactic Acid 10%	✓
Acetone	V
Methanol	✓
Sugar Syrups	✓
Caustic Soda	V
Petrol	V
Oil	V
Detergents	V

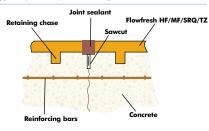
APPLICATION

AFFEICATION		
Production Areas		
- Medium traffic - dry process	V	
- Heavy traffic - dry process	✓	
- Clean rooms	v	
- Wet /spillage areas		
- Kitchens/Pot Wash areas		
- Packaging areas		
Warehouses		
- Loading bays		
Laboratories/Quality Control	V	
Dispensaries	V	
Cold Stores/Freezers		
Solvent/Chemical Stores		
Battery Chargina Areas		

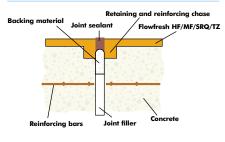
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TYPICAL DETAILS

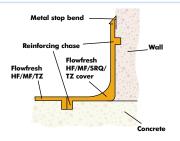
Typical (induced) movement joint



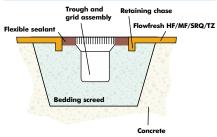
Typical (expansion) movement joint



Typical floor to wall detail



Typical drainage channel arrangement



SUCCESSFUL PROJECTS

"We had the utmost faith and confidence that Flowcrete could meet our needs. Our confidence was justified with a floor which underpins our own quality culture."

Bob Wakefield, Project Engineer, McVities

"We knew of the reputation of Flowcrete and relied heavily on their knowledge and the fact that they have an approved network of contractors."

Tim Stafford, Project Manager Tryton Foods

"Although the original floor met with all the relevant food act regulations, it hadn't been updated for 15 years. Flooring for the flood industry had seen many new products, and we wanted to pick up on this and improve health and hygiene in the production areas Flowcrete was the ideal choice for us and the finished floor has not only bought us up to date, it looks great too."

Mr. Lyn, Owner, Cleone Foods

"By using different colours on the floor, we've been able to create very distinct easily understandable demarcation zones. The floor looks really good and we are very pleased with the result."

Theo Gavriel, Owner, Theo's





Flowcrete around the world

Argentina
Australia
Belgium
Brazil
China
Czech Republic
Denmark
Estonia
France
Germany
Hong Kong
South Korea
Latvia
Malaysia
New Zealand
Norway
Poland
Singapore
South Africa
Sweden
Switzerland
Thailand
UAE
UK
USA

Flowcrete Argentina Flowcrete Australia Flowcrete Corrosion Protection Flowcrete South America Flowcrete Shanahai Ltd Flowcrete Czech c/o Techfloor Flowcrete Denmark Flowcrete Estonia Flowcrete France c/o Solve Flowcrete Germany Flowcrete (Hong Kong) Ltd Flowcrete Korea Flowcrete Baltics Flowcrete Asia Sdn Bhd Flowcrete New Zealand Flowcrete Norway AS Flowcrete Polska Sp. z.o.o. Flowcrete Singapore Pte Ltd Flowcrete SA (Pty) Ltd Flowcrete Sweden AB Flowcrete Switzerland Flowcrete Thailand Flowcrete Middle East FZCO Flowcrete UK Ltd

Flowcrete North America Inc.

Tel: +32 1575 6927 Tel: +55 11 3675 1873 Tel: +86 21 6236 0984 Tel: +420 553 791 311 Tel: +45 3053 1294 Tel: +371 864 4666 Tel: +33 344 58 89 76 Tel: +49 3466 364 370 Tel: +852 2795 0478 Tel: +822 333 5613 Tel: +371 8644666 Tel: +60 3 6277 9575 Tel: +649 817 2739 Tel: +47 6486 0830 Tel: +48 22 879 8907 Tel: +65 6482 3133 Tel: +27 31 461 3411 Tel: +46 435 38630 Tel: +41 41 709 00 12 Tel: +66 2 693 0775 Tel: +971 4 881 1016 Tel: +44 (0)1270 753 000 Tel: +1 936 539 6700

Tel: +54 11 4621 2991

Tel: +61 2 9651 4742

Fax: +61 2 9651 4742 Fax: +32 1575 2894 Fax: +55 11 3675 1873 Fax: +86 21 6236 0476 Fax: +420 553 791 311 Fox: +45 6440 0039 Fax: +371 7541 241 Fax: +33 344 58 73 86 Fax: +49 3466 364 371 Fax: +852 2795 4842 Fax: +822 326 1925 Fax: +371 7541241 Fax: +60 3 6277 4645 Fax: +649 817 2749 Fax: +47 6486 0831 Fax: +48 22 879 8918 Fax: +65 6482 5225 Fax: +27 31 461 3475 Fax: +46 435 31498 Fax: +41 41 709 00 13 Fax: +66 2 694 3295 Fax: +971 4 881 2726 Fax: +44 (0)1270 753 333 Fax: +1 936 539 6701

Fax: +54 11 4481 1422

Email: argentina@flowcrete.com Email: australia@flowcrete.com Email: belgium@flowcrete.com Email: brazil@flowcrete.com Email: ching@flowcrete.com Email: czechrep@flowcrete.com Email: denmark@flowcrete.com Email: baltic@flowcrete.com Email: france@flowcrete.com Email: germany@flowcrete.com Email: hongkong@flowcrete.com Email: southkorea@flowcrete.com Email: baltic@flowcrete.com Email: malaysia@flowcrete.com Email: newzealand@flowcrete.com Email: norway@flowcrete.com Email: poland@flowcrete.com Email: singapore@flowcrete.com Email: southafrica@flowcrete.com Email: sweden@flowcrete.com Email: switzerland@flowcrete.com Email: thailand@flowcrete.com Email: uge@flowcrete.com Email: uk@flowcrete.com Email: usa@flowcrete.com