

FLOWFRESH - antibacterial technology



Food and Drink Industry



Meat and Fish Processing



Bakeries and Confectionary



Food Preparation and Kitchens



Hospitals and Healthcare



Pharmaceutical

WELCOME TO FLOWCRETE - for the world at your feet

Flowcrete's commitment to exceptional design, technical support and advisory services from initial enquiry through to installation is at the heart of our 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, a global commercial and sales support team and the backing of a major multi-national manufacturing group, Flowcrete is well placed as the world's leading performance flooring designer and manufacturer to serve clients in their local markets.

Our fully trained and monitored global network of approved flooring contractors ensures your flooring project is in safe hands with Flowcrete.

Flowcrete Group Ltd.



Mark Greaves
Managing Director
Flowcrete Group Ltd

CREA Food Technology Centre, UK.



FLOWFRESH - a fresh approach to flooring

Flowfresh, in an exclusive global partnership with Polygiene®, represents a new generation of antimicrobial flooring, which uses a natural silver ion based technology to deliver the ultimate in hygiene performance.

Flowfresh polyurethane technology has been designed to service the hygiene industries by offering total ground protection from a number of harmful bacteria, mould and yeasts.

Flowfresh's exceptional antibacterial properties are ideally suited to the food and drinks manufacturing industries where our Flowfresh systems have been installed in meat and fish processing areas, dairies, bakeries and kitchens as well as within both wet and dry processing zones in many locations across the globe.

Our Flowfresh systems are also a popular choice with pharmaceutical and healthcare environments looking to achieve the maximum in cleanability and hygiene in order to ensure best-of-class practise.

Hygienic, safe, sustainable and secure - the benefits of our Flowfresh system make it an appealing choice for any environment where sanitation and cleanliness are of the utmost importance.



ANTIBACTERIAL technology

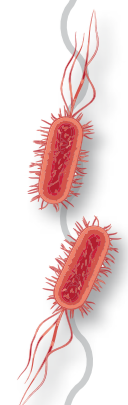


Polygiene®
Safer to Touch

Flowfresh is the premier choice in flooring for environments reliant on optimum hygiene performance but also those where strength, style and speed are considered top priorities too.

Flowfresh's exceptional hygiene properties facilitate the cleaning and maintenance process by delivering a germ free surface which remains that way, even between wash cycles.

Flowfresh's high compressive strength takes the strain of a wide-range of mechanical equipment used in the food and drinks manufacturing industries and its exceptional non-slip profile helps to reduce the number of work-related accidents.



PIONEERING natural protection

Flowfresh has an established reputation in the food and drink manufacturing industries for providing a high-performance seamless surface capable of standing up to the daily rigours associated with modern processing environments.

Analysing the food and drink manufacturing environment you will find a number of unique zones that look for distinct characteristics and properties of a floor.

Heavy duty production areas require hard-wearing, chemical resistant floor finishes that can withstand heavy machinery as well as number of acids and oils used within the production process. Sensitive wet and dry processing areas look for steam-cleanable floors whereas wet processing zones and cold stores need slip-resistant systems that protect staff and visitors underfoot.

Flowfresh is a 'one-hit' system that delivers on all of the above, providing effective antibacterial and antifungal protection to food and drink manufacturing environments.

TRANSFORMING FOOD AND DRINK environments



Marine Gold Meat Processing, Malaysia.



Sea Wealth Fish Processing, Thailand.

Coca-Cola, USA.



OPTIMISING HYGIENE – Flowfresh delivers exceptional hygiene performance thanks to Polygiene®, a silver ion based antimicrobial agent that controls the bacterial population on the surface of the floor.

ACHIEVING CLEANABILITY – Flowfresh lessens the burden on cleaning processes by inhibiting the spread of dirt and bacteria between wash cycles.

GUARANTEEING LONGEVITY – Flowfresh's antibacterial properties remain active for the lifetime of the floor, even when worn, scratched or damaged and, unlike other antimicrobial additives, Polygiene® has shown no sign of inducing resistance to any yeasts, moulds or bacteria to date.

PIONEERING SAFETY – Flowfresh's excellent non-slip profile guarantees safety underfoot for both staff and visitors, particularly in wet processing zones, by reducing the number of work-related slips and falls.

RESISTING CHEMICALS – Flowfresh is resistant to a wide range of chemicals used within the food and drink manufacturing industries including a large number of acids, oils and detergents.

DELIVERING ENDURANCE – Flowfresh's high compressive strength creates a surface that withstands heavy footfall, vehicular traffic and the bulk of mechanical equipment used in the manufacturing process.

ANTIMICROBIAL PROTECTION - a serious public health issue

Virtually everything we touch is a breeding ground for harmful microbes and this poses a significant threat to public health and wellbeing. Although good cleaning practices can help to reduce the spread of bacteria, this alone is not enough. Flowfresh, in partnership with Polygiene®, kills micro-organisms that settle on the surface of the floor - guaranteeing unparalleled antibacterial defence.

SAFE - Most germs can develop a resistance to synthetic antimicrobial additives, however Polygiene® shows no sign of inducing resistance to any of the bacteria from which it protects. Furthermore, the silver allergenic potential of Polygiene® technology is extremely low with no recorded cases of any skin irritation to date.

SUSTAINABLE - Polygiene® is an environmentally pro-active alternative to synthetic antimicrobial additives. Silver and silver salts are naturally occurring and have been historically used for over two millennia to protect from bacteria.

SCIENTIFICALLY VERIFIED - Polygiene® has been independently tested and validated to a number of international and regional industry standards and has been proven to reduce the bacterial population on the floor's surface by up to 99.9%.*

Fonterra Hautapu, New Zealand.

Big Sister Foods, Australia.



POLYGIENE TECHNOLOGY - killing microbes on contact



Flowfresh, in partnership with Polygiene® is built around an invisible technology whereby a thermosetting amino compound, locked into the main resin matrix of our flooring materials, continuously emits powerful silver ions that destroy any gram-positive or gram-negative bacteria that settles on the surface of the floor.

Unlike synthetic antimicrobial additives or surface treatments Flowfresh remains active for the lifetime of the floor - even when worn or damaged - providing effective antibacterial and anti-fungal protection between wash cycles.

Flowfresh offers total protection against a number of yeasts, moulds and bacteria and unlike industry standard flooring solution has been scientifically proven to inhibit the growth of the bacterial population on the surface of the floor by up to 99.9%.

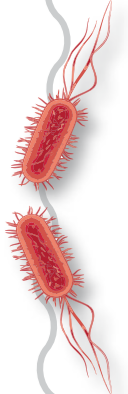
INHIBITING THE GROWTH of bacteria

- ✓ SARS
- ✓ MRSA
- ✓ E-coli
- ✓ Listeria
- ✓ C.difficile
- ✓ Proteus Vulgaris
- ✓ Salmonella Typhi
- ✓ Enterococcus Faecalis
- ✓ Staphylococcus Aurous
- ✓ Staphylococcus Pyogenes
- ✓ Pseudomonas Aeruginosa

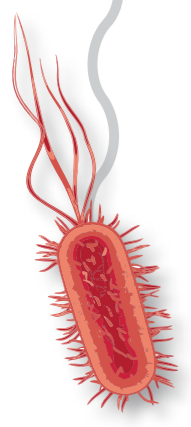


1. The silver ions are homogenously distributed throughout the floor.
2. The silver ions migrate to the surface.
3. The silver ions kill the bacteria on the surface by penetrating the cell membrane.

*Based on E-coli Testing conducted to JIS Z 2801:2000



Kraft Foods, Belgium.



FLOWFRESH

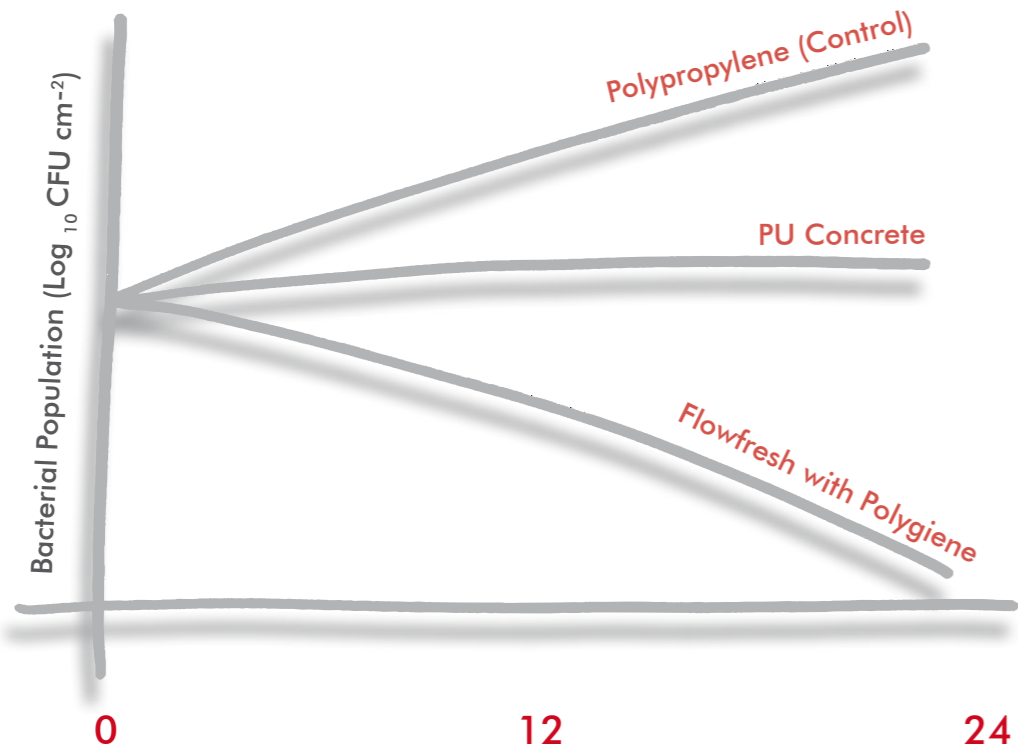
antibacterial technology

INDEPENDENTLY TESTED proven result



Polygiene®
Safer to Touch

Antibacterial Activity after 60 wash cycles
(three months cleaning)



Flowfresh, in an exclusive partnership with Polygiene®, has been independently tested to the Japanese Industrial Standard JIS Z 280: 2000, where its antibacterial properties were measured by quantifying the survival of bacterial cells on the treated material in comparison with polyurethane concrete containing no antimicrobial additive and an untreated polypropylene control.

Results demonstrated that after 60 wash cycles the bacterial population on the surface of the untreated polypropylene had almost doubled in quantity.

Although the seamless polyurethane concrete did not reduce the bacterial population on the surface of the floor it was, in large part, able to maintain the level of bacterial activity with effective cleaning owing to inherent antibacterial properties within the make-up of the material.

Flowfresh, with the addition of Polygiene®, was able to inhibit further bacterial growth and kill the existing bacterial population by up to 99.9%.

FLOWFRESH containing **POLYGIENE®** delivers a bacterial reduction of up to **99.9%**



Kuala Lumpur Convention Centre, Malaysia.



Willowton Oil & Cake Mills, South Africa.

TIME-PROVEN performance

- Nestlé
 - Kraft Foods
 - Cadbury Trebor Bassett
 - Diageo
 - The Coca Cola Company
 - McVities
 - Fox's Biscuits
 - Arla Foods
 - Wrigleys
 - Britvic
- Café-Liègeois
 - Thornton's Chocolates
 - Kellogs
 - Mars
 - KP Nuts
 - Rungis Fish Market
 - L'Oréal
 - AstraZeneca
 - Cox Pharmaceuticals
 - Nivea
- 3M Pharmaceuticals
 - Pfizer
 - Bayer
 - GlaxoSmithKline
 - Boots
 - SmithKline Beecham
 - Roche Pharmaceuticals
 - Merck Sharpe & Dohme
 - Procter & Gamble
 - Johnson & Johnson

Our Flowfresh systems have been installed in the facilities of some of the world's leading food and drink manufacturers as well as pharmaceutical heavyweights and medical specialists - helping to transform the performance aspect of their working environments through improved sanitation.

TRANSFORMING PHARMACEUTICAL environments

Flowfresh has an extensive track-record in the pharmaceutical industry for delivering the ultimate in hygiene performance. From laboratories and clean rooms through to chemical storage areas or liquid and powder processing areas, Flowfresh has been designed to meet the needs of this high-tech sector.

GlaxoSmithKline, Belgium.

Flowfresh is highly resistant to a number of aggressive chemicals used in the pharmaceutical process and performs in a wide range of variables conditions and temperatures.

Flowfresh is also able to comply with the demanding standards that the pharmaceutical industry requires – including the relevant BS, GLP, GDP and GMP standards.

Texas A&M University, Qatar.



Glomed Pharmaceuticals, Vietnam.

BENEFITS OF flowfresh

RESISTING AGGRESSIVE CHEMICALS – Flowfresh is resistant to a number of aggressive chemicals used in the pharmaceutical process including acetone, methanol and oil as well as a number of acids and detergents.

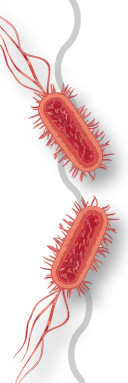
FIGHTING BACTERIA – Flowfresh, in an exclusive partnership with Polygiene®, kills bacteria on contact, inhibiting the growth of yeast, mould and bacteria on the surface of the floor.

MINIMISING DOWNTIME – Flowfresh is installed by a network of trained and approved applicators whose expert installation can significantly reduce disturbance to the working site.

DISSIPATING ELECTRICITY – Flowfresh can be formulated to provide an adjustable antistatic profile that allows for electrical charges to be dissipated within dry powder processing areas.

OPTIMISING HYGIENE – Flowfresh's exceptional antibacterial properties remain active for the lifecycle of the floor providing durable hygiene performance and reducing lifecycle costing.

DEMANDING INTEGRITY - Flowfresh is also able to comply with the demanding standards required by the pharmaceutical sector including the relevant BS, GLP, GDP and GMP standards.



ENSURING sustainability

"The Flowcrete Group is committed to developing our operations in a sustainable manner and has a holistic approach to producing environmentally friendly flooring materials. This means that rather than just focussing on environmental issues, all decision making considers the environmental, social and economic impact of Flowcrete's flooring materials, manufacture and supply in order to improve our Company's contribution to addressing the important issues our society faces today."

"The solvent-free formulation of Flowcrete's Flowfresh range eliminates any harmful volatile organic compounds being released to atmosphere and its low odour significantly reduces the emission of any unpleasant smells during installation. Where possible, Flowcrete's Flowfresh range is transported in bulk quantities using re-usable UN Certified IBC containers; this reduces the waste element and energy consumption associated with construction applications. All of our products are now packaged in recyclable containers and all non-reusable waste is disposed of accordingly by approved waste-handling companies in compliance with Environmental Legislation."

"We recognise that adopting a sustainable approach across all our operations throughout the world is the only way that we can truly improve our Company's contribution to society in this arena. By doing so, Flowcrete's contribution to sustainability will be significant and tangible."

Mark Greaves
Managing Director
Flowcrete Group Ltd

FLOWFRESH - antibacterial technology



CREA Food Technology Centre, UK.



A new food technology centre, designed to support artisan food and drink production, has started out on a good footing with the installation of a Flowcrete floor. The new CREA Food Technology Centre, recently opened by the Queen and Duke of Edinburgh, specified Flowfresh HF to provide a hygienic surface throughout all of the Centre's units.

Flowfresh's unique hygienic qualities, coupled with its slip-resistance and durability, ensure the system measures up to the tough and uncompromising demands of the food sector. A special additive locked inside the floor emits silver-ions which kill bacteria. This additive, Polygiene®, is capable of controlling salmonella, E-coli and many other types of bacteria and yeast on contact – a major step forward in fighting the spread of potentially harmful bugs.

Kraft Inc, Belgium.



International food and beverage giant, Kraft Inc, the manufacturer of leading brands such as Oreo, Philadelphia, Ritz and Milka sought a state-of-the-art flooring system for one of its high-tech manufacturing facilities located in Belgium. Kraft was in need of a seamless system that could stand up to the rigours of food and drink manufacture on a grand-scale.

Flowfresh was the surface of choice for this leading confectionary brand. Flowfresh is the ideal flooring solution for the food and drink industry thanks to Polygiene®, an antimicrobial agent locked in the resin matrix of the product. Polygiene® kills ground-level bacteria on contact helping to create safe and hygienic environments. Flowfresh is also heat resistant to over 120°C making it the ideal product for food preparation areas.

Stevian Biotechnology, Malaysia.



A pioneering biotechnology company has used the latest in flooring technology to deliver state-of-the-art protection to its Asian plant. The Stevian Biotechnology Corporation, a company based in South East Asia, had invested in a poly-functional biotechnology plant in Sepang, Malaysia and required systems which had a proven track record in protecting against bacteria for the flooring and wall coatings.

7,000 square metres of Flowcrete products were installed across the plant including Flowfresh MF, a polyurethane resin system which contains an antimicrobial additive, Polygiene®. Flowfresh MF was installed in the production areas of the plant where hygiene was of the utmost importance. With Flowfresh, Flowcrete was able to transform the processing plant into a hygienic and high performance working environment.



Flowcrete around the world

Manufacturing Centres of Excellence

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