

FLOWFRESH



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

Flowfresh Range Technical Profile



Flowfresh represents a new generation of performance antimicrobial flooring based on the use of silver in partnership with Polygiene® that kills up to 99.9% of bacteria on contact.

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.

Offering total protection, a continuous migration of silver ions is 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 is HACCP International certified safe for use in food and beverage processing environments and meets the stringent ISO 22196 standard of evaluating the antimicrobial activity of antimicrobial treated plastics and other non-porous surfaces.

Application Suitability



Food Manufacturing



Bottling Plants & Breweries



Meat, Poultry & Seafood



Bakeries & Confectionery



Food Preparation



Healthcare & Pharmaceutical



Dairies & Hatcheries



Animal Care



Resistance Chart

BACTERIAL RESISTANCE

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

CHEMICAL RESISTANCE*

| | | | |
|-----------------------|---|-----------------|---|
| Hydrochloric Acid 10% | ✓ | Methanol | ✓ |
| Sulphuric Acid 10% | ✓ | Sugar Syrups | ✓ |
| Citric Acid 10% | ✓ | Caustic Soda | ✓ |
| Acetic Acid 5% | ✓ | Petrol | ✓ |
| Lactic Acid 10% | ✓ | Oil Ingredients | ✓ |
| Phosphoric Acid 5% | ✓ | Detergents | ✓ |

*A chemical resistance chart is available on request.

System Components

| | DESCRIPTION | USES |
|--------------------------|--|--|
| Flowfresh Coating Primer | 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 95% (ASTM F2170 (AS1884:2012)). | For priming concrete and screeds, prior to overcoating with the Flowfresh flooring system. |
| Flowfresh Coating | 3-component, matte polyurethane cement sealer with low odour. Containing the antimicrobial additive, Polygiene®. | Used as a sealer to Flowfresh flooring systems e.g. Flowfresh SR. |
| Flowfresh Coating Satin | 3-component, semi-gloss polyurethane cement sealer with low odour. Containing the antimicrobial additive, Polygiene®. | Used as a sealer to Flowfresh flooring systems e.g. Flowfresh SR. |
| Flowfresh Sealer | 2-component, full gloss polyurethane sealer with low odour. Containing the antimicrobial additive, Polygiene®. | Used as a sealer to Flowfresh flooring systems e.g. Flowfresh SR. |
| Flowfresh SL | 3-component, polyurethane cement base coat for the Flowfresh Range containing the antimicrobial additive, Polygiene®. | Used as a base coat to Flowfresh flooring systems e.g. Flowfresh SR. |

Flowfresh SR (4-9 mm)

A heavy duty, chemical resistant, antimicrobial, polyurethane resin floor system, with a positively textured slip resistant finish.

Flowfresh SR is available in various thicknesses with a matte, semi-gloss or gloss finish and is designed for wet processing zones such as food manufacturing, preparation areas, commercial kitchens and chemical processing plants.



Antimicrobial:

Contains Polygiene® additive that kills up to 99.9% bacteria.



Thermal Resistant:

Resistant to temperatures up to 120°C and freeze/thaw resistant.



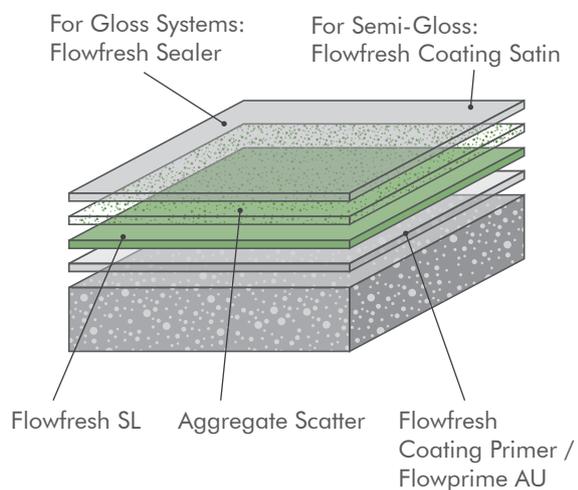
Certified:

HACCP International certified polyurethane flooring system.



Slip Resistant:

Impressive anti-slip profile in dry and wet conditions.



Technical Profile: Flowfresh SR

| | 4 mm | | | 6 mm | | | 9 mm | |
|--|--|------------|-------|--|------------|-------|--|------------|
| | Matte | Semi-Gloss | Gloss | Matte | Semi-Gloss | Gloss | Matte | Semi-Gloss |
| FIRE RESISTANCE AS/ISO 9239.1 | CHF Value: 10 kW/m ² Smoke Value: 69% (Mean) | | | CHF Value: 10 kW/m ² Smoke Value: 69% (Mean) | | | CHF Value: 10 kW/m ² Smoke Value: 69% (Mean) | |
| SLIP RESISTANCE* Method described in AS4586-2013 | Dry & Wet Rating is dependent on specification | | | Dry & Wet Rating is dependent on specification | | | Dry & Wet Rating is dependent on specification | |
| IMPACT RESISTANCE EN ISO 6272 | 15 Nm | | | 15 Nm | | | 15 Nm | |
| TEMPERATURE RESISTANCE | -15°C to 65°C | | | -25°C to 90°C | | | -40°C to 120°C | |
| WATER PERMEABILITY Karsten Test | Nil | | | Nil | | | Nil | |
| VAPOUR PERMEABILITY ASTM E96:90 | - | | | - | | | 3 g / m ² / 24 hrs | |
| ABRASION RESISTANCE Taber Abrader | 0.1 g loss per 1000 cycles (1 kg using CS17 wheels) | | | 0.1 g loss per 1000 cycles (1 kg using CS17 wheels) | | | 0.1 g loss per 1000 cycles (1 kg using CS17 wheels) | |
| COMPRESSIVE STRENGTH EN 13892-2 | >50 N/mm ² | | | >50 N/mm ² | | | >50 N/mm ² | |
| FLEXURAL STRENGTH EN 13892-2 | >20 N/mm ² | | | >20 N/mm ² | | | >20 N/mm ² | |
| TENSILE STRENGTH BS 6319 | 7 N/mm ² | | | 7 N/mm ² | | | 7 N/mm ² | |
| BOND STRENGTH ASTM D4541 (Pull-Off Test) | >1.5 MPa | | | >1.5 MPa | | | >1.5 MPa | |
| TOXICITY | Taint free to sensitive foodstuffs (when cured). | | | Taint free to sensitive foodstuffs (when cured). | | | Taint free to sensitive foodstuffs (when cured). | |
| SPEED OF CURE** Full Chemical Cure at 20°C | 6 days | | | 6 days | | | 6 days | |

*The slipperiness of flooring materials can change significantly, due to the installation process, after short periods of use, due to inappropriate maintenance, longer-term wear and/or surface contaminants (wet or dry). Textured systems are recommended to meet slip resistance value requirements for wet conditions and/or surface contaminants (wet or dry) — please contact our Technical Advisors for further details. **For full speed of cure details, contact our Technical Advisors.



Flowfresh SL (3 mm)

A pigmented, self-smoothing, chemical resistant, polyurethane resin-based floor finish containing Polygiene® antimicrobial additives.

Typically used in dry or semi-wet food processing and packaging zones.



Antimicrobial:

Contains Polygiene® additive that kills up to 99.9% bacteria.



Chemical Resistant:

Protects against corrosive ingredients and cleaning agents.



Certified:

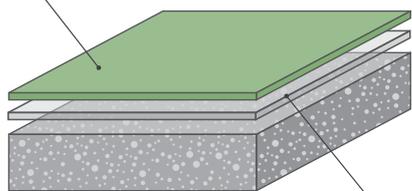
HACCP International certified polyurethane flooring system.



Easy to Clean:

The self-smoothing finish is easy to maintain and sterilise.

Flowfresh SL



Flowfresh Coating Primer / Flowprime AU

Technical Profile

| FIRE RESISTANCE | |
|--|--|
| EN 13501-1 | B _{FL} -s1 |
| SLIP RESISTANCE* | |
| Method described in AS4586-2013 | Dry & Wet Rating is dependent on specification |
| IMPACT RESISTANCE | |
| BS8204 Part 1 Cat: A (<0.8 mm) ISO 6272 | 1 kg weight > 1.8 m 2 kg weight > 1.5 m |
| TEMPERATURE RESISTANCE | |
| 5°C to 65°C | |
| COEFFICIENT OF THERMAL EXPANSION | |
| ASTM C531 | 5.70 × 10 ⁻⁵ °C ⁻¹ |
| WATER PERMEABILITY | |
| Karsten Test | Nil (Impermeable) |
| ABRASION RESISTANCE | |
| Taber Abrader | 0.1g loss per 1000 cycles (1 kg using CS17 wheels) |
| COMPRESSIVE STRENGTH | |
| EN 13892-2 | >50 N/mm ² |
| FLEXURAL STRENGTH | |
| EN 13892-2 | >20 N/mm ² |
| TENSILE STRENGTH | |
| EN 13892-2 | > 10 N/mm ² |
| BOND STRENGTH | |
| ASTM D4541 (Pull-Off Test) | > 1.5 MPa |
| TOXICITY | |
| Taint free to sensitive foodstuffs (when cured). | |
| SPEED OF CURE** | |
| Full Chemical Cure at 30°C | 6 days |

*The slipperiness of flooring materials can change significantly, due to the installation process, after short periods of use, due to inappropriate maintenance, longer-term wear and/or surface contaminants (wet or dry). Textured systems are recommended to meet slip resistance value requirements for wet conditions and/or surface contaminants (wet or dry) — please contact our Technical Advisors for further details. **For full speed of cure details, contact our Technical Advisors.

Flowfresh SL (4 mm)

A pigmented, self-smoothing, chemical resistant, polyurethane resin-based floor finish containing Polygiene® antimicrobial additives.

Typically used in dry or semi-wet food processing and packaging zones.



Antimicrobial:

Contains Polygiene® additive that kills up to 99.9% bacteria.



Chemical Resistant:

Protects against corrosive ingredients and cleaning agents.



Certified:

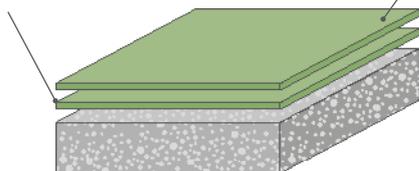
HACCP International certified polyurethane flooring system.



Easy to Clean:

The self-smoothing finish is easy to maintain and sterilise.

Flowfresh
Coating Primer /
Flowprime AU



Flowfresh SL

Technical Profile

| FIRE RESISTANCE | | | |
|----------------------------------|---|-------|-------|
| EN 13501-1 | B _{FL} - s1 | | |
| SLIP RESISTANCE | | | |
| Method described in AS4586-2013 | P1 | | |
| IMPACT RESISTANCE | | | |
| EN ISO 6272 | 15Nm | | |
| TEMPERATURE RESISTANCE | | | |
| From 0°C to 70°C | | | |
| COEFFICIENT OF THERMAL EXPANSION | | | |
| ASTM C531 | 5.70 x 10 ⁻⁵ °C ⁻¹ | | |
| WATER PERMEABILITY | | | |
| Karsten Test | Nil (impermeable) | | |
| VAPOUR PERMEABILITY | | | |
| ASTM E96:90 | 5g/m ² /24hrs (at 4mm thick) | | |
| ABRASION RESISTANCE | | | |
| Taber Abrader | 0.1g loss per 1000 cycles (1kg using CS17 wheels) | | |
| COMPRESSIVE STRENGTH | | | |
| EN 13892-2 | 50N/mm ² | | |
| FLEXURAL STRENGTH | | | |
| EN 13892-2 | 20 N/mm ² | | |
| TENSILE STRENGTH | | | |
| BS6319 | 7N/mm ² | | |
| BOND STRENGTH | | | |
| ASTM D4541 (Pull-Off Test) | > 1.5MPa | | |
| VOC CONTENT | | | |
| ASTM D2369-10: 2015 | < 140 g/L | | |
| SPEED OF CURE* | | | |
| | 10 °C | 20 °C | 30 °C |
| Foot Traffic | 36 h | 24 h | 12 h |
| Vehicular Traffic | 72 h | 48 h | 24 h |
| Full Chemical Cure | 10 d | 7 d | 6 d |

*These figures are typical properties achieved in laboratory tests at 20°C and at 50% Relative Humidity. Textured systems are recommended to meet slip resistance value requirements for wet conditions and/or surface contaminants (wet/dry). Please contact our Technical Advisers for further details.



Flowfresh SRQ (4 mm)

A heavy duty, chemical resistant and hygienic hybrid resin flooring system with a decorative coloured quartz finish.

Typically used in internal wet processing and food preparation areas.



Rapid Curing:

MMA additives speed up cure time, reducing construction schedules.



Thermal Resistant:

Tolerant of sustained temperatures up to 70°C.



Resistant:

Holds its own against impact, traffic and chemical attack.

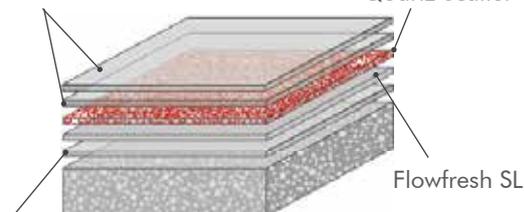


Slip Resistant:

Provides slip resistance for traction underfoot.

Flowfast Flexible Sealer
/ Flowtex Sealer

Coloured
Quartz Scatter



Flowfresh Coating Primer
/ Flowprime AU

Technical Profile

| FIRE RESISTANCE - AS/ISO 9239.1 | |
|---|---|
| CHF Value | >11 kW/m ² |
| Smoke Value | <4 kW/m ² |
| SLIP RESISTANCE | |
| Method described in AS4586-2013 | P5 (Based on 0.6mm-1.0mm Quartz Sand Aggregate) |
| IMPACT RESISTANCE | |
| EN ISO 6272 | 10Nm |
| TEMPERATURE RESISTANCE | |
| Tolerant of sustained temperatures up to 70°C | |
| WATER PERMEABILITY | |
| Karsten Test | Nil (impermeable) |
| CHEMICAL RESISTANCE | |
| Contact Technical Department | |
| ABRASION RESISTANCE | |
| Taber Abrader | 0.1g loss per 1000 cycles (1kg using CS17 wheels) |
| COMPRESSIVE STRENGTH | |
| EN 13892-2 | 60 N/mm ² |
| FLEXURAL STRENGTH | |
| EN 13892-2 | 20 N/mm ² |
| TENSILE STRENGTH | |
| BS6319 | 15 N/mm ² |
| BOND STRENGTH | |
| ASTM D4541 (Pull-Off Test) | > 1.5MPa |
| SPEED OF CURE* | TOP COAT (BASED ON FLOWFAST FLEXIBLE SEALER) |
| Walk On | 1 hr |
| Full Traffic & Chemical Cure | 2 - 3 hrs |

*These figures are typical properties achieved in laboratory tests at 20°C and at 50% Relative Humidity. Textured systems are recommended to meet slip resistance value requirements for wet conditions and/or surface contaminants (wet/dry). Please contact our Technical Advisers for further details.

Flowfresh SRQ (6 mm)

A heavy duty, chemical resistant and hygienic hybrid resin flooring system with a decorative coloured quartz finish.

Typically used internal wet processing and food preparation areas.



Rapid Curing:

MMA additives speed up cure time, reducing construction schedules.



Thermal Resistant:

Tolerant of sustained temperatures up to 70°C.



Resistant:

Holds its own against impact, traffic and chemical attack.

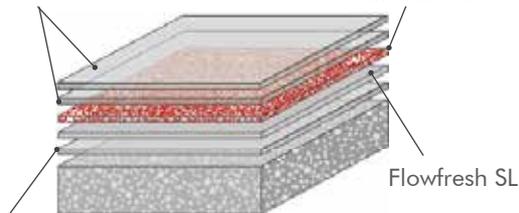


Slip Resistant:

Provides slip resistance for traction underfoot.

Flowfast Flexible Sealer /
Flowtex Sealer

Coloured
Quartz Scatter



Flowfresh Coating Primer
/ Flowprime AU

Technical Profile

FIRE RESISTANCE - AS/ISO 9239.1

CHF Value >11 kW/m²

Smoke Value <4 kW/m²

SLIP RESISTANCE

Method described in AS4586-2013 P5 (Based on 0.6mm-1.0mm sized Quartz Sand Aggregate)

IMPACT RESISTANCE

EN ISO 6272 10Nm

TEMPERATURE RESISTANCE

Tolerant of sustained temperatures up to 70°C

WATER PERMEABILITY

Karsten Test Nil (impermeable)

CHEMICAL RESISTANCE

Contact Technical Department

ABRASION RESISTANCE

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

COMPRESSIVE STRENGTH

EN 13892-2 60 N/mm²

FLEXURAL STRENGTH

EN 13892-2 20 N/mm²

TENSILE STRENGTH

BS6319 15 N/mm²

BOND STRENGTH

ASTM D4541 (Pull-Off Test) > 1.5MPa

SPEED OF CURE*

**TOP COAT
(BASED ON FLOWFAST
FLEXIBLE SEALER)**

Walk On 1 hr

Full Traffic &
Chemical Cure 2 - 3 hrs

*These figures are typical properties achieved in laboratory tests at 20°C and at 50% Relative Humidity. Textured systems are recommended to meet slip resistance value requirements for wet conditions and/or surface contaminants (wet/dry). Please contact our Technical Advisers for further details.

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