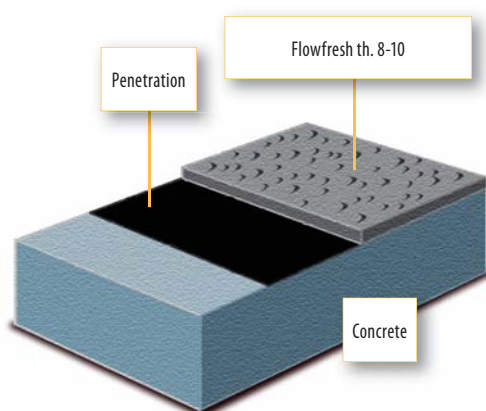




## FLOWFRESH

On each floor, regardless of its use and operating conditions, you will find bacteria, fungi and mildew. These are simple microorganisms, unicellular or multicellular, parasitizing on decomposing organic matters. Digestive system of such life forms is capable of fissuring proteins, saccharides and sugars. The fission is allowed by the presence of adenosine triphosphate (ATP). During this process, energy is released and later used for vital processes.



### Brief description

**Flowfresh** is an antibacterial homogeneous flooring system which ensures maximum hygiene of the floor and thus of the whole plant. The system may be implemented according to the ordered conditions in three technologies: **Flowfresh RT** - 4-6 mm layer with smooth surface, **Flowfresh HF** - 6-9 mm layer with antislip surface treatment, and **Flowfresh MF** - 3-4 mm self-levelling screed.

### Typical fungi and mildew

- Alternaria alternata
- Aspergillus flavus
- Aspergillus fumigatus
- Aspergillus niger
- Aspergillus repens
- Aureobasidium pullulans
- Candida albicans
- Chaetomium globosum
- Cladosporidium herbarium
- Curvularia genticulata
- Epidermophyton Floccosum

Meat combine Vahala Hustopec n. Becnou 150 m <sup>2</sup>
Madeta Cesky Krumlov 980 m <sup>2</sup>
Meat combine Varys Uvalno 75 m <sup>2</sup>
Packing plant Breclav 48 m <sup>2</sup>
Prompt Brno-Modrice 380 m <sup>2</sup>
Hame Babice 170 m <sup>2</sup>
Ferme Piron Aubel farm 100 m <sup>2</sup>
Viangros Bruxelles meat processing 600 m <sup>2</sup>
Bridge Farm Daires Suffolk boiling house 200 m <sup>2</sup>





### Characterization of the material

Flowfresh is a urethane-cement screed intended for ensuring maximal hygiene in all types of plants. It creates a crystal lattice the structure of which eliminates the possibility of deposition of microorganisms in the floor and their consequent growth. The microorganisms do not deposit and proliferate on the surface. The new-generation biocide destroys bacteria with long-term effects. It blocks the ATP enzyme during the reaction of fissioning of chains to amino acids (blocks the molecule), stops the release of all metabolisms of the organism which is followed by the organism fatigue and death. Organisms destroyed by the effects of Flowfresh release the digested particles of biocide, thus providing subsequent protection. No absorption of microbial matters or diffusion occurs throughout the service life.

### Composition

Component A - polyalcohol constituent on the polyurethane resin basis. It contains a mixture of dipentene and terebinthine alcohols.  
 Component B - hardener on the polyurethane resin basis. It contains isomers and homologues of diphenylmethane di-isocyanate.  
 Component C - filling agent C (mixture of sands, cement, calcite and special chemicals).

### Use

Flowfresh is a flooring material with extra-tenacious surface and excellent chemical resistance, intended for the use in both wet and dry process plants like:

- foodstuffs production (meat and poultry processing, fish processing, bakeries, ready-made meal production, production of fruit juices and soft drinks, fruits and vegetables processing);
- chilling and freezing plants;
- slaughter-houses;
- breweries, wine cellars;

- pharmaceutical industry;
- chemical industry;
- stores and packing plants;
- textile industry;
- electric industry;
- paper industry;
- engineering industry.

### Advantages

- excellent chemical resistance;
- high abrasion resistance;
- high heat resistance;
- jointless and hygienic surface without spots that allow the stay of dirt and bacteria;
- slip-resistant surface;
- allows steam cleaning;
- low maintenance requirements;
- minimal odour during application;
- long service life.

### Chemical resistance

Excellent resistance to the effects of sugars and most acids (both organic and inorganic), bases, salts, aggressive gases, sea air. For detailed test results, please contact Techfloor s. r. o.

### Resistance to the effects of common chemicals

sodium chloride .....	●
lactic acid 90 % .....	●
citric acid 30 % .....	●
acetic acid 30 % .....	●
hydrochloric acid 10 % .....	●
sulphuric acid 25 % .....	●
formaldehyde 100 % .....	●
hydrogen peroxide 100 % .....	●
sodium hydrate 50 % .....	●
methanol .....	●
water 100 °C .....	●
spirit (distillate) .....	●
wine .....	●



- blood..... ●
- fats, oils, grease ..... ●
- fruit juices..... ●
- glycerol..... ●
- petrol ..... ●
- heavy industry detergents..... ●

● *Outstanding resistance: no changes even after long-term contact.* ● *Good resistance: no changes after 1-month contact -then changes to the surface, eventually no further test results are available.* ● *Limited resistance: will resist for the period of 2-3 hours, then permanent damage appears.* We guarantee chemical resistance and dryness for stepping after 7 days at optimum conditions of the material hardening process.

**Certificates**

**Flowfresh** meets the requirements of Ordinance No. 163/2002 Coll. The material has been tested by certification and testing bodies. The material quality has been certified by a certificate issued by an authorized body. Products put to the market correspond to the technical specification.

The following documents are available for Flowfresh:

**Certificate** according to provisions of § 10 of Act No. 22/1997 Coll., as amended, on technical requirements for products and on amendment of certain other Acts, and § 5 of Ordinance No. 163/2002 Coll., as amended by Ordinance No. 312/2005 Coll.

**Product Certification Protocol** according to Act No. 22/1997 Coll., as amended, on technical requirements for products, and Ordinance No. 163/2002 Coll., § 5.

**Building-Technical Certificate** according to

provisions of § 10 Act No. 22/1997 Coll., as amended, on technical requirements for products and on amendment of certain other Acts, and § 2 and 3 of Ordinance No. 163/2002 Coll., as amended by Ordinance No. 312/2005 Coll.

**Measurement and assessment of natural radionuclide content** in building materials based on Act No. 18/1997 Coll, as amended, § 6, Subpar. 6. This activity is more detailed in Ordinance No. 307/2008 Coll. §96, annex 10, Tables 1, 2, 3.

**Test Protocols** according to the following Standards: CSN EN 1015-11, CSN 744507, CSN 731324, CSN 732577, CSN 732577, CSN 736242, CSN 732579.

**Testing of Fire-Technical Characteristics** according to the following Standards: CSN EN 13501-1, CSN EN ISO 9239-1, CSN EN ISO 11925-2, CSN EN 730810.

**Determination of Volatile Organic Compounds (VOCs)** - Test method of specialized workplace - National Institute of Public Health, Prague.



Technical data	Flowfresh MF		Flowfresh RT, HF	
	10 °C	20 °C	10 °C	20 °C
Pot life of mixture .....	60 min. ....	30 min. ....	20 min. ....	15 min.
Light traffic .....	36 hrs .....	24 hrs .....	36 hrs .....	24 hrs
Full traffic .....	72 hrs .....	48 hrs .....	72 hrs .....	48 hrs
Full hardening .....	7 days .....	4 days .....	12 days .....	7 days
Pressure resistance .....	> 50 MPa .....	> 85 MPa .....	> 50 MPa .....	> 50 MPa
Bending resistance .....	15 MPa .....	> 15 MPa .....	15 MPa .....	15 MPa
Tensile strength .....	12 MPa .....	> 6 MPa .....	10 MPa .....	10 MPa
Gripping .....	> bond strength of concrete .....	> bond strength of concrete .....	> bond strength of concrete .....	> bond strength of concrete
Impact resistance .....	< 0.5 mm (BRE Screed test) .....	< 0.5 mm (BRE Screed test) .....	< 0.5 mm (BRE Screed test) .....	< 0.5 mm (BRE Screed test)
Temperature range - wet conditions .....	up to 60 °C .....	up to 60 °C .....	up to 105 °C .....	up to 105 °C
Temperature range - dry conditions .....	from -20 °C to +80 °C .....	from -20 °C to +80 °C .....	from -40 °C to +110 °C .....	from -40 °C to +110 °C



### Colour range

- red
- mustard
- dark green

### Work safety

- Irritant to eyes, respiratory organs and skin.
- May cause sensitization by inhalation and skin contact.
- Danger of serious eye injury.
- Do not inhale vapours.
- Do not inhale dust.
- Use suitable protective clothing, protective gloves and goggles or eye shield.
- In case of skin contact, wash with plenty of water. In case of contact with eyes, rinse with plenty of water immediately and seek medical advice.
- This material and its packaging must be disposed of as hazardous waste.
- In case of insufficient ventilation, use suitable respiratory protection.
- In case of accident or if you feel unwell, seek medical advice immediately.
- Prevent release to environment.
- Deleterious by inhalation.



### Contact our dealers!

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