

FLOWFRESH

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



Construction Products Group Europe

www.flowcrete.com.pl

R AIR CO

≧ GOLD جي GOLD

Polygiene

FLOWFRESH RANGE





Flowfresh is a new generation of microbiologically clean floors that perform well in demanding conditions. Created in partnership with Polygiene[®], Flowfresh harnesses silvers natural ability to inhibit the growth of microbes. The effectiveness of Flowfresh flooring systems in reducing the growth of bacteria, fungi and molds has been confirmed in accordance with the ISO 22196 standard.

Proving that a building is able to meet a high standard of hygiene is essential in many sectors, especially contamination sensitive settings such as the food and beverage, pharmaceutical and electronics industries.

Based on polyurethane concrete, the key aspects of Flowfresh, making it an ultra-hygienic flooring system, include its seamless, impervious, highly durable nature combined with its ability to incorporate coving and stainless-steel drainage.

A large number of Flowfresh systems are now available in QUICK versions. The development of these fast curing versions provides a crucial benefit as it reduces application time, ensuring less costly downtime in the industry for maintenance work.

Application Suitability





Food & Beverage

Meat & Fish



Bakeries & Confectionary



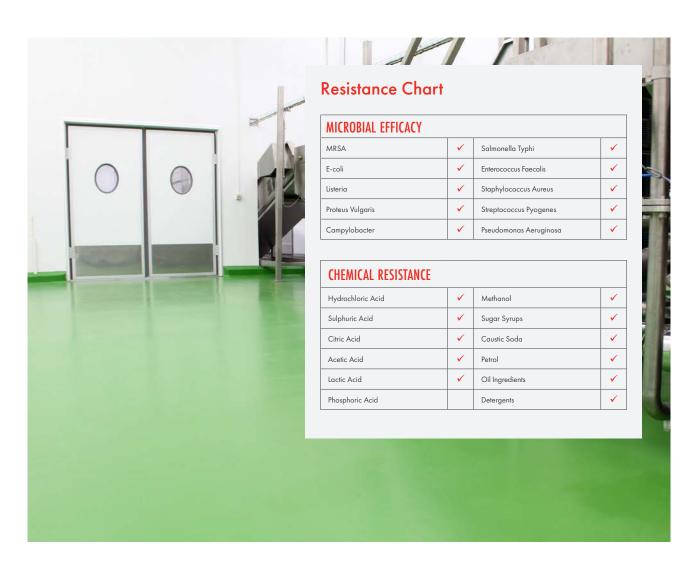
Food Prep & Kitchens



Hospitals & Healthcare



Pharmaceutical Environments

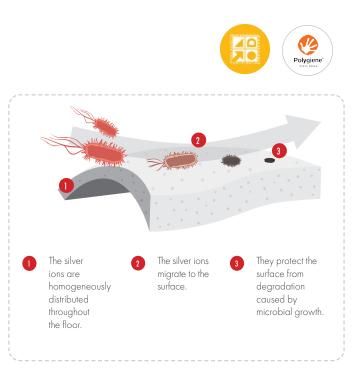


HACCP International Certified Hygienic Flooring

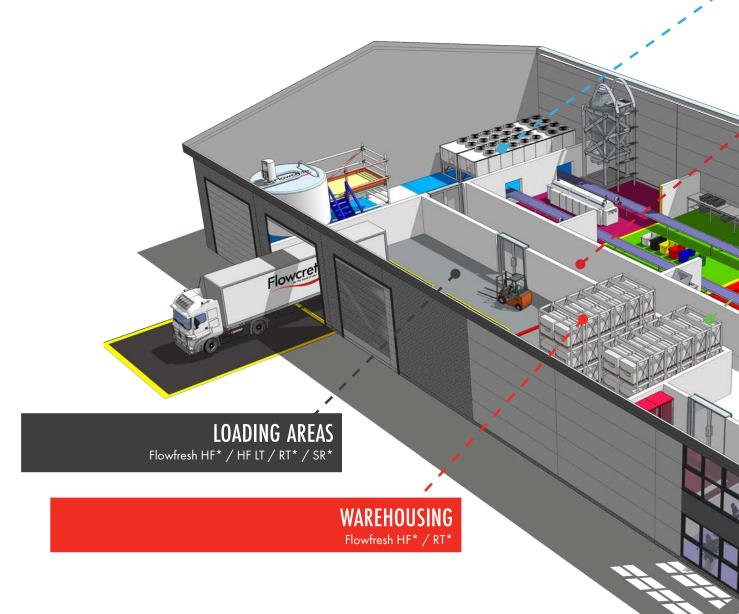
A food and beverage processing floor is subject to constant traffic, impact damage due to equipment handling and often subject to attack from chemicals and corrosive ingredients.

Resin flooring systems ensure a non-porous, smooth and seamless surface, making it very difficult for microbes or mould to grow.

HACCP international certified and tested to ISO 22196 polyurethane flooring materials offer enhanced product protection with the inclusion of Polygiene antimicrobial silver ion technology protecting the microbial degradation.



A GUIDE TO FLOOR ZONES



Benefits of Flowfresh Flooring



Holds its own against impact, traffic and temperature.



Protects against chemicals, fats, hot oils, sugar and acids.



Improved air quality during installation.

Positively textured profile

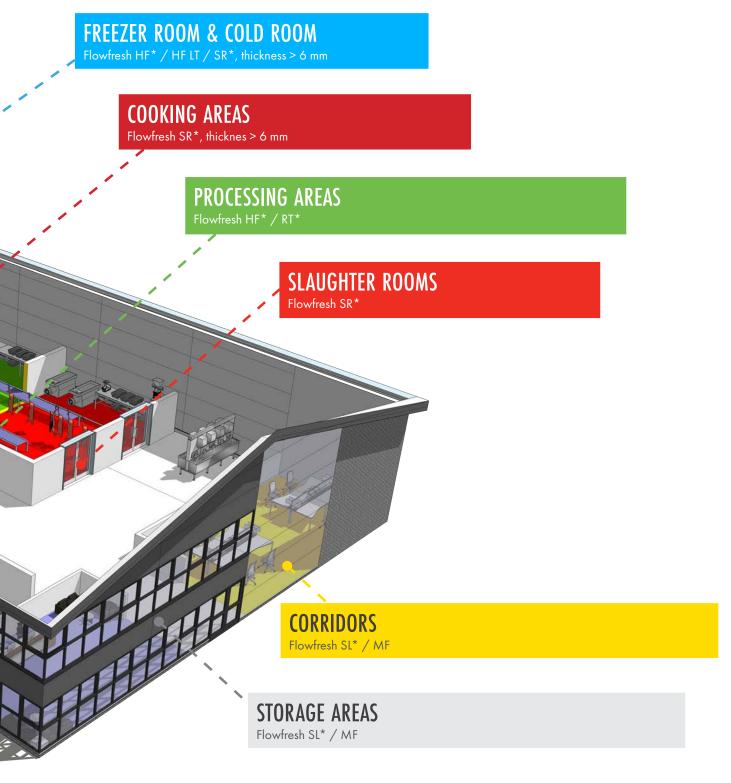
to minimise the risk of slips.



Antimicrobial additives can reduce microbes by up to 99.9%



Quick systems available.



*Quick system also suitable for this area.

Why Specify Flowfresh Flooring Solution for Different Areas of Application?

The floor of a food facility is subject to a wide variety of products including fats, hot oils, blood, sugar solutions, natural food acids, chemicals, detergents. Many of these substances can cause damage to an uncoated concrete floor due to their corrosive nature. If you need a specification please write to: **specyfikacje@cpg-europe.com**.

Flowfresh SL (2-4 mm)

A self-smoothing, medium duty, antimicrobial treated polyurethane resin floor finish.

Best suited to packaging areas and processing zones subject to light-medium foot and wheeled traffic.



Chemical Resistance

Hygienic



Durable



Technical information

| FIRE RESISTANCE | | | |
|--|--------------|--|--|
| B _n -s1 | EN 13501-1 | | |
| SLIP RESISTANCE | | | |
| Wet > 40 | EN 13036-4 | | |
| IMPACT RESISTANCE | | | |
| IR10 (10 Nm) | EN ISO 6272 | | |
| WEAR RESISTANCE | | | |
| AR0,5 (≤ 50 μm) EN 13892-4 | | | |
| WATER PERMEABILITY | | | |
| Nil (Impermeable) | Karsten Test | | |
| TEMPERATURE RESISTANCE | | | |
| Tolerant to intermittent spillages up to +60°C & Sustained dry heat from -20°C to +50°C. | | | |



Quick System Available

Standard colour chart



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

Dark Green

Ochre

PU Concrete

Standard colour chart



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

Technical information

| FIRE RESISTANCE | | | |
|--|------------|--|--|
| B _A −s1 | EN 13501-1 | | |
| SLIP RESISTANCE | | | |
| Wet > 40 | EN 13036-4 | | |
| IMPACT RESISTANCE | | | |
| IR15 (15 Nm) EN ISO 6272 | | | |
| WEAR RESISTANCE | | | |
| AR0,5 (≤ 50 µm) | EN 13892-4 | | |
| WATER PERMEABILITY | | | |
| Nil (Impermeable) Karsten Test | | | |
| TEMPERATURE RESISTANCE | | | |
| Tolerant to intermittent spillages up to +80°C & Sustained dry heat from -20°C to +70°C. | | | |
| | | | |
| Quick System Available | | | |

Flowfresh MF (4-6 mm)

A self-smoothing, medium duty, antimicrobial treated polyurethane resin floor finish.

Best suited to packaging areas and processing zones subject to light-medium foot and wheeled traffic.



Hygienic

Chemical Resistance

Durable

Easy to Clean

Flowfresh HF (6-9 mm)

A trowel-applied, antimicrobial treated, seamless, resin floor screed with a fine textured coloured finish.

Best suited to wet processing zones subject to high volumes of foot and wheeled traffic.



Hygienic



Chemical Resistance



Slip Resistance



Temperature Resistance

Technical information

| FIRE RESISTANCE | | | |
|------------------------|--------------|--|--|
| B _A -s1 | EN 13501-1 | | |
| SLIP RESISTANCE | | | |
| Wet > 40 | EN 13036-4 | | |
| IMPACT RESISTANCE | | | |
| IR20 (20 Nm) | EN ISO 6272 | | |
| WEAR RESISTANCE | | | |
| AR0,5 (≤ 50 µm) | EN 13892-4 | | |
| WATER PERMEABILITY | | | |
| Nil (Impermeable) | Karsten Test | | |
| TEMPERATURE RESISTANCE | | | |
| | | | |

Tolerant to intermittent spillages up to +120°C or sustained dry heat from -40°C to +105°C (at 9 mm thickness). Tolerant to intermittent spillages up to +70°C (at 6 mm thickness).



Quick System Available





Gentian Blue

Mid Grey



Dark Green

Ochre

Dark Grey

Standard colour chart



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

Standard colour chart



Mustard

Red

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

Technical information

| FIRE RESISTANCE | | | | |
|---|---------------------|--|--|--|
| 3 _n -s1 EN 13501-1 | | | | |
| SLIP RESISTANCE | | | | |
| Wet > 40 | /et > 40 EN 13036-4 | | | |
| IMPACT RESISTANCE | | | | |
| IR20 (20 Nm) | EN ISO 6272 | | | |
| WEAR RESISTANCE | | | | |
| ARO,5 (≤ 50 μm) | EN 13892-4 | | | |
| WATER PERMEABILITY | | | | |
| Nil (Impermeable) Karsten Test | | | | |
| TEMPERATURE RESISTANCE | | | | |
| Tolerant to intermittent spillages up to +120°C or sustained dry heat from -40°C to +105°C (at 9 mm thickness). Tolerant to intermittent spillages up to +70°C (at 6 mm thickness). | | | | |

Flowfresh HF LT (6-9 mm)

An antimicrobial treated polyurethane resin floor screed with improved fluidity at low temperatures.

Best suited to wet processing zones subject to high volumes of foot and wheeled traffic.



Hygienic



Chemical Resistance



Slip Resistance

Temperature Resistance

Flowfresh RT (6-9 mm)

Best suited to wet processing zones subject to high volumes of foot and wheeled traffic.



Hygienic



Chemical Resistance





Temperature Resistance

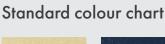
Technical information

| FIRE RESISTANCE | | | |
|------------------------------------|-------------------------------|--|--|
| B _n -s1 EN 13501-1 | | | |
| SLIP RESISTANCE | | | |
| Wet > 40 EN 13036-4 | | | |
| IMPACT RESISTANCE | | | |
| IR20 (20 Nm) | EN ISO 6272 | | |
| WEAR RESISTANCE | | | |
| AR0,5 (≤ 50 µm) EN 13892-4 | | | |
| WATER PERMEABILITY | | | |
| Nil (Impermeable) | Karsten Test | | |
| TEMPERATURE RESISTANCE | | | |
| Tolerant to intermittent spillages | up to +120°C or sustained dry | | |

Tolerant to intermittent spillages up to +70°C (at 6 mm thickness).



Quick System Available



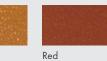




Dark Green







Mustard

Cream

Dark Grey

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

Standard colour chart



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

Flowfresh SR (4-11 mm)

A slurry-broadcast, antimicrobial treated polyurethane resin floor system.

Suited to all zones subject to heavy duty zones, this trowel applied system delivers an anti-slip floor finish.



Technical information

| FIRE RESISTANCE | | | | |
|--|--------------|--|--|--|
| B _n −s1 | EN 13501-1 | | | |
| SLIP RESISTANCE | | | | |
| Wet > 40 | EN 13036-4 | | | |
| IMPACT RESISTANCE | | | | |
| IR20 (20 Nm) | EN ISO 6272 | | | |
| WEAR RESISTANCE | | | | |
| AR0,5 (≤ 50 μm) | EN 13892-4 | | | |
| WATER PERMEABILITY | | | | |
| Nil (Impermeable) | Karsten Test | | | |
| TEMPERATURE RESISTANCE | | | | |
| +90°C – intermittent spillages, from -20°C to+80°C – sustained heat (at 8 mm thickness) +120°C – intermittent spillages, from -40°C to +105°C – sus- tained heat (at 9-10 mm thickness) | | | | |



Quick System Available

Flowfresh ESD SL (2-3 mm)

A conductive/ESD, self-levelling, antimicrobial treated polyurethane resin floor finish with a smooth matte coloured finish.

Provides required anti-slip finish in rooms and areas where the floor is expected to be resistant to medium mechanical and chemical loads.



Anti-static



Chemical Resistance



Hygienic



Abrasion Resistant

Technical information

| RESISTANCE TO GROUND RG | | | |
|----------------------------|------------------|--|--|
| Rg < 1x10 ⁶ Ω | EN IEC 61340-4-1 | | |
| FIRE RESISTANCE | | | |
| B _A -sl | EN 13501-1 | | |
| SLIP RESISTANCE | | | |
| Wet > 40 | EN 13036-4 | | |
| IMPACT RESISTANCE | | | |
| IR10 (10 Nm) | EN ISO 6272 | | |
| WEAR RESISTANCE | | | |
| AR0,5 (≤ 50 μm) EN 13892-4 | | | |
| WATER PERMEABILITY | | | |
| Nil (Impermeable) | Karsten Test | | |
| TEMPERATURE RESISTANCE | | | |
| Tolerant up to +70°C | | | |





Standard colour chart



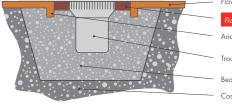
The applied colours may differ from the examples shown. For a full colour chart and samples, contact CPG Poland office.

Typical (induced) Movement Joint

Flowfresh System Flowfresh System Anchor Point Saw Cut Concrete

Typical Drainage Chanel Arrangement

Typical (induced) Movement Joint



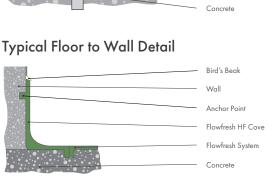
Flowfresh System
 Flowfresh Sealant
 Anchor Point
 Trough and Grid Assembly
 Bedding Screed
 Concrete

Typical (expansion) Movement Joint

Flowfresh System
Flowfresh Seala
Anchor Point

Backing Material

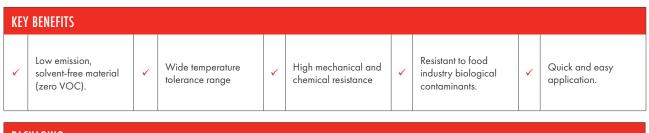
Joint Filler



Flowfresh Sealant

One-component, elastic, polymeric joint sealer with improved chemical resistance and thermal stability. Intended for sealing anti-shrinkage joints in Flowfresh floor systems and small, working cracks, work transitions, wall / floor joints, elements of machine foundation, etc. in areas, where biological contamination is expected, it is especially suitable for food manufacturing and processing plants.

NOTE! During application and initial curing of product, substrate temperature needs to be at least 3°C higher than dew point temperature.

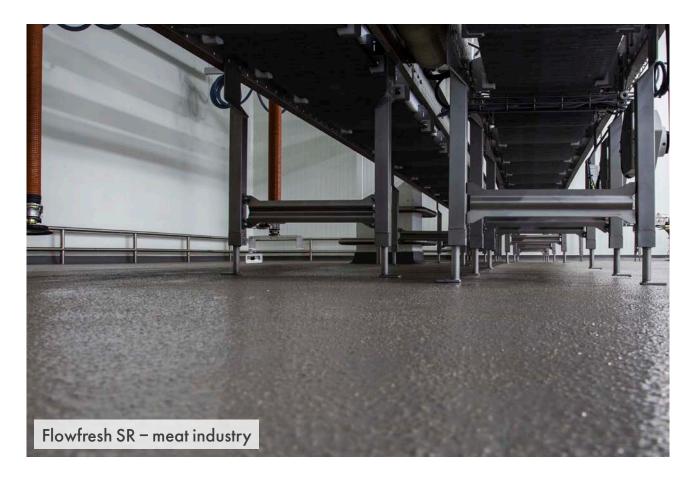


PACKAGING

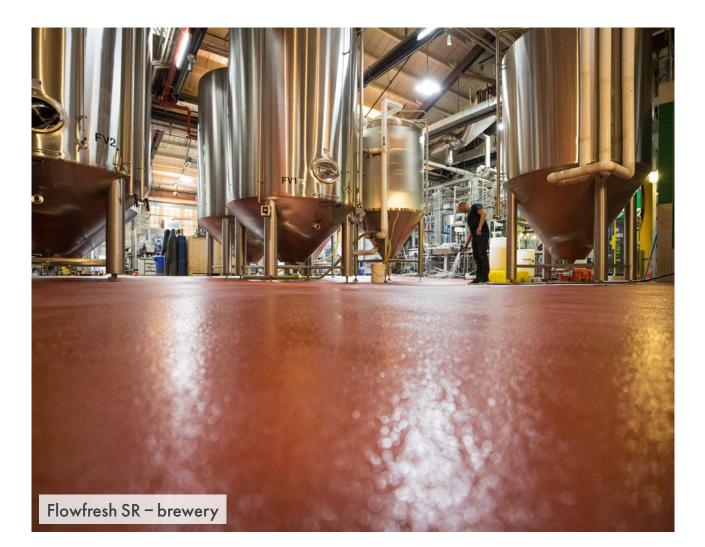
Available in 600 ml foil packs, 15 pieces per carton.

| PHYSICAL PROPERTIES | | | |
|--|--------------------|--|--|
| Appearance | Coloured paste | | |
| Skin formation time (in +20°C, 50 % RH) | ~2.5 mm / 24 hours | | |
| Shore A hardness after full cure (EN ISO 868) | ~53 | | |
| Crosswise elongation capabilities (joint movement) | ≤ 25 % | | |
| Elongation at break (EN ISO 8339) | ~ 300% | | |
| Service temperature range | -35°C to + 100°C | | |
| Available colours | Grey, Red, Ochre | | |

FLOWFRESH EXAMPLE OF PROJECTS









Flowfresh SL – warehouse



COMPARISON OF FLOWFRESH SYSTEMS

| | FLOWFRESH SL | FLOWFRESH MF | FLOWFRESH RT | FLOWFRESH HF |
|--|---------------------|---------------------|--------------------------------|--------------------------------|
| THICKNESS | 2-4 mm | from 4 mm to 6 mm | from 6 mm to 9 mm | from 6 mm to 9 mm |
| FINISH | smooth / with san | smooth / with sand | structure / with sand | structure |
| TEMPERATURE RESISTANCE (INTERMITTENT) | from -20°C to +50°C | from -20°C to +70°C | from -40°C to +105°C (9 mm) | from -40°C to +105°C (9 mm) |
| SLIP RESISTANCE (PENDULUM SLIP TEST) | Wet > 40 | Wet > 40 | Wet > 40 | Wet > 40 |
| FOOT TRAFFIC RESISTANCE | medium* | medium - heavy* | medium - heavy* | medium - heavy* |
| WHEEL TRAFFIC RESISTANCE | medium* | medium - heavy* | medium - heavy* | medium - heavy* |
| IMPACT RESISTANCE | IR10 (10 Nm) | IR15 (15 Nm) | IR20 (20 Nm) | IR20 (20 Nm) |
| ANTISTATIC PROPERTIES | - | _ | _ | _ |
| APPLICATION METHOD | self-leveling | self-leveling | trowel-applied | trowel-applied |
| TOPPING SPEED OF CURE (FOOT TRAFFIC IN TEMP. +20°C) | 24 h | 24 h | 24 h | 24 h |
| QUICK VERSION AVAILABLE (REFERS TO TOPPING) | \checkmark | \checkmark | \checkmark | \checkmark |
| QUICK VERSION TOPPING SPEED OF CURE (FOOT TRAFFIC IN TEMP. +20°C) | 5 h | 5 h | 5 h | 5 h |
| POLYGIENE [®] TECHNOLOGY | \checkmark | \checkmark | \checkmark | \checkmark |
| SEAMLESS SYSTEM | \checkmark | \checkmark | \checkmark | ~ |

Ught host traffic – areas of seldom use and clean environment, e.g. server rooms, technical rooms, area for manual sorting of light packages etc.; Medium toot traffic – areas of clean manufacturing with permament foot traffic, in clean shoes, typically on rubber soles, eg. manufacturing and assembling electronic devices Heavy foot traffic – constant feet traffic in dirty areas, using different kinds of shoes, eg. warehouses, handling areas,

^{*}Definitions:

| FLOWFRESH HF LT | FLOWFRESH ESD SL | FLOWFRESH SR | | |
|--------------------------------|------------------|--------------------------------|-----------------|-----------------------------------|
| from 6 mm to 9 mm | 2—3 mm | 4—5 mm | 6—8 mm | 9+ mm |
| structure | smooth | with sand | | |
| from -40°C to +105°C (9 mm) | up to +70°C | from -40°C to +105°C (9—10 mm) | | |
| Wet > 40 | Wet > 40 | Wet > 40 | | |
| medium - heavy* | medium* | medium* medium - heavy* heavy* | | heavy* |
| medium - heavy* | medium* | medium* | medium - heavy* | heavy* |
| IR20 (20 Nm) | IR10 (10 Nm) | IR20 (20 Nm) | | |
| _ | \checkmark | _ | | |
| trowel-applied | self-leveling | selt-leveling | | self-leveling / trowel-applied |
| 24 h | 24 h | 24 h | | |
| _ | _ | ✓ | | |
| _ | _ | 5 h | | |
| \checkmark | \checkmark | ✓ | | |
| ✓ | √ | \checkmark | | |

Light wheel traffic – seldom traffic of hand pallet trucks (< 100 kg weight) on full rubber wheels, manual sorting of light weight goods Medium wheel traffic – constant traffic of hand or electric pallet trucks (< 500 kg weight) on full, rubber wheels Heavy wheel traffic – constant hand or electric pallet trucks (> 1000 kg weight) traffic, wooden pallets dragging

CONStruction Products Group Europe

CPG Europe manufactures high performance building materials in order to solve the complex challenges faced by today's construction industry. It is the home for multiple European construction product brands, including illbruck, Flowcrete, Nullifire, Tremco, Vandex, Dryvit and Nudura. With over 1,400 employees across Europe, we are committed to being by your side to shape a world where buildings and structures save energy, last longer and exceed sustainability benchmarks.

From joint sealing, bonding and insulation through to passive fire protection, flooring, waterproofing and roofing solutions- the product brands housed within CPG Europe cover a wide array of different construction needs. Combined with the wealth of expertise, services and support we provide a truly unique offer - to make our customers more successful time after time.

CPG Europe is part of RPM International Inc. - one of the world's leading construction products companies for both the industrial and consumer segments.

Our Values



COLLABORATION







ENGAGEMENT

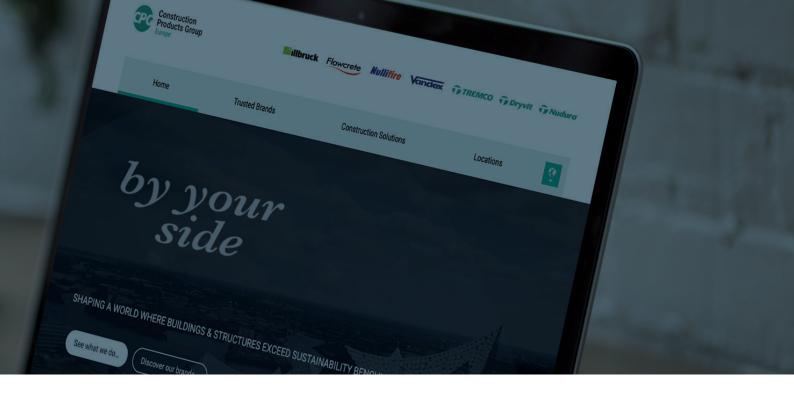


Vandex TREMCO Dryvit Dryvit

Europe's leading construction products brands...

Nullifire





Delivering World-Class Construction Product Solutions.

The product brands housed within CPG Europe cover a wide array of different construction needs and provide a wealth of complex services, support and systems that are rarely found together under one roof.



Window Insulation, Façade Construction, Exterior Insulation & EIFS, Structural & Inplant Glazing, Insulated Concrete Forms (ICFs)



Intumescent Coatings, Fire Stopping



Seamless Resin Flooring, Subfloor Preparation, Car Parking Structures



Potable & Waste Water Industry, Balconies, Terraces, Basements & Foundations



Liquid Applied Systems, Felt Systems, Vegetated Roofing



Tremco CPG Poland Sp. z o.o.

tel.: +48 22 879 8907 email: poland@cpg-europe.com www.cpg-europe.com







() かい You Tube

www.flowcrete.com.pl/blog

youtube.com/flowcretetv

(in)

/company/flowcretepolska