

**ISOCRETE**

**FLOWING K**

**SCREED**

The latest technology in liquid screed.

Specification | Manufacture | Installation



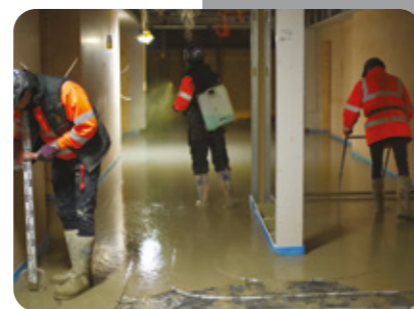
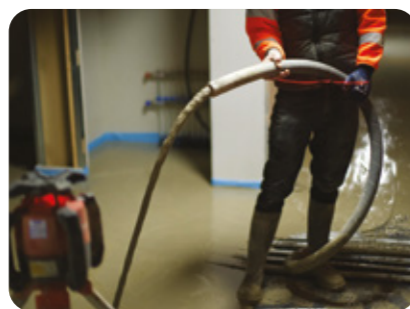
# THE LEVEL BEST IN FLOOR SCREEDS

Catering for the diverse needs of architects and construction professionals in both, new build and refurbishment environments, our world-leading Isocrete Floor Screeds offer a variety of choices in terms of thickness levels, compressive strength and drying times.

Since the 1960s, Isocrete Floor Screeds have been the product of choice on some of the world's biggest projects. Termed the 'king of screeds', Isocrete K-Screed is our most commonly specified product in the range and known for delivering consistency, high-strength and compatibility with a number of bolt-on subfloor systems, including underfloor heating and acoustic insulation.

The combination of strong, fast-drying, self-levelling and low shrinkage properties, makes it the ideal choice for those willing to fast-track their projects and have quick access to site.

As we continue to innovate our time-proven systems, we now offer a liquid cement version of K-screed: Isocrete Flowing K.



## INTRODUCING THE ISOCRETE FLOWING K-SCREED

A new flowing cementitious screed that delivers the fastest drying time, high strength and suitability with various subfloor systems.

Combining high strength, rapid installation, and the latest cementitious technology, Isocrete Flowing K Screed can be used with a range of bolt-on subfloor systems, such as underfloor heating and acoustic insulation, whilst maintaining a lower thickness profile compared to a standard screed build up.

Incorporating proprietary additives and graded sand, as well as our innovative Flowing K Binder, the Isocrete Flowing K Screed can be used to fast-track projects that require large volumes to be installed in a single day. Up to 500 m<sup>2</sup> can be laid in 24 hours – 5 times faster drying time than a standard screed.

Produced under BS 8204 in our Flowcrete ISO 9001 certified plant, Isocrete Flowing K can be delivered to site ready to use, serving today's construction industry with consistent quality and high performance in screeds.

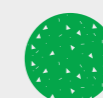
5 TIMES FASTER  
DRYING TIME  
THAN A STANDARD  
SCREED

Watch our Isocrete Flowing K-Screed installation video:



### Rapid Installation:

Up to 500 m<sup>2</sup> per day at nominal 50 mm thick and foot traffic in 24 - 48 hours.



### Protein & Laitance Free:

Will not harbour bacteria and no mechanical abrasion required.



### Resistance:

High strength & resistance to construction traffic.



### Underfloor Heating:

Can be installed over underfloor heating (commissioned after 7 days).



# KEY BENEFITS

Isocrete Flowing K Screed offers the latest technology in liquid cement screed and is perfect for commercial and domestic floor installations.

- 01 Compatible with all cement-based primers and adhesives, including fast track systems.
- 02 No surface laitance (dust) – it does not require site revisits for surface grinding.
- 03 Typical drying time is 14 to 21 days, depending on site conditions – 50-70% faster than standard sand and cement screeds.
- 04 Volumes of up to 25 m<sup>3</sup> can be laid in a single day, which equates to 500 m<sup>2</sup> at 50 mm thick – up to 5 times faster than a standard screed installation.
- 05 It has a thickness range between 20-60 mm – 20 mm Bonded, 30 mm Unbonded and 40 mm Floating on insulation and over underfloor heating.
- 06 10 year warranty, which is offered with all our Isocrete screeds.
- 07 When combined with our other products from Floorzone (see page 12), our installations come with a 10-year warranty, which includes: our subfloor systems such as, damp proof membranes, underfloor heating, thin section-levelling screeds, and flooring adhesives.
- 08 High Thermal Conductivity of between 1.9-2.4W/m.k depending on sand used – making it ideal to use with underfloor heating systems.
- 09 Due to Isocrete's innovative formulation, our liquid screed has minimum drying shrinkage.
- 10 Maximum bay sizes: without underfloor heating is up to 150 m<sup>2</sup>, with UFH up to 100 m<sup>2</sup>.
- 11 Easy application with our lightly pigmented Isocrete Curing Membrane, where it's easier to see areas where allocation has been completed.
- 12 Can be laid Bonded, Unbonded or Floating.
- 13 Available in three different compressive strength formulations – a solution for every subfloor system.
- 14 Its drying properties allow floor coverings of all types to be installed much faster compared to other types of screed available, speeding up the entire building project.
- 15 Excellent thermal conductivity for underfloor heating, which lowers the running costs for the end user.



# THE PERFECT CHOICE FOR ALL YOUR CONSTRUCTION PROJECTS

Isocrete Flowing K has a solution for every construction application, from small domestic to major construction projects.

Due to its unique formulation, our flowing screed can be trafficked in as little as 24 hours depending on site conditions.

Isocrete Flowing K can be laid Bonded, Unbonded or Floating. This means there is a solution for every subfloor, including underfloor heating, insulation and acoustic installations, with the added benefit of a lower thickness profile when compared to standard screed build ups.

Available in three different compressive strength formulations, Isocrete Flowing K can meet the challenges of every flooring project:

## ISOCRETE FLOWING K STANDARD

USES	COMPRESSIVE STRENGTH
Projects which are subject to standard traffic. Ideal for domestic and commercial environments.	25 N/mm <sup>2</sup>

## ISOCRETE FLOWING K HEAVY DUTY




USES	COMPRESSIVE STRENGTH
Projects where heavy foot traffic is expected, such as heavy commercial, hospitals, airport terminals and corridors. Also ideal if a resin is being used.	30 N/mm <sup>2</sup>

## ISOCRETE BAGGED FLOWING K

USES	COMPRESSIVE STRENGTH
Projects such as domestic and small commercial, where access by vehicle is not possible or required. A robust formulation for manual installation.	35 N/mm <sup>2</sup>

-  Meet BS 8204-7 criteria
-  Can be used in conjunction with the majority of floor finishes
-  Easy & quick to apply
-  Flowable & self-smoothing
-  Can be laid at a reduced thickness
-  Faster drying times & reduced shrinkage
-  High compressive strength at a reduced thickness
-  Lower tendency to split/separate on over watering
-  Good thermal conductivity with underfloor heating

# DELIVERY METHODS

-  **Plant Mix:**  
Ready mixed from a preferred plant, subject to testing.
-  **Volumetric Mix:**  
Mixed on site, giving the ultimate control in quality, flexibility and speed.
-  **Traditional Bags:**  
Available in a convenient bag solution. Ideal for smaller projects for a fast turnaround – ‘Just add water’ technology.



To find out how to order the right choice of Isocrete Flowing K for your project, speak to our expert team: [flooringuk@cpg-europe.com](mailto:flooringuk@cpg-europe.com) +44 (0) 1942 251 400

## Our CPG Partners network of approved contractors

Our extensive industry knowledge and the quality of our products means our services are a first choice for our trusted network of approved contractors nationwide.

You can take advantage of our direct relationships with leading building and repair contractors, as we constantly work together to improve standard site practices and the whole supply chain; simplifying logistics, minimising waste and improving safety.

With nearly 40 years of expertise in the manufacture and specification of the best-performing flooring materials, Flowcrete’s commitment to exceptional design, technical support and service from initial enquiry through to installation, is at the heart of our business philosophy. With our unique mix of brands, services, and industry knowledge, as part of Construction Products Group Europe, we are the single supplier our customers trust and partner with for every element of their floor projects, no matter the scale, scope or sector.

Our CPG Partners are fully trained and monitored approved flooring contractors, in order to maintain the consistent high standards of workmanship and customer service we demand. Their specialist knowledge, skills and hard graft means your flooring projects are in safe hands.

“Our screeds, combined with Isocrete Acoustic K and Isowarm underfloor heating, as well as Flowcrete’s range of seamless floors, have been at the heart of our unique Floorzone concept, where the entire floor – involving screed, soundproofing, underfloor heating and decorative finish – is designed and supplied by ourselves and installed by a Flowcrete-approved contractor.”

– David Black Sales Director at CPG UK Flooring



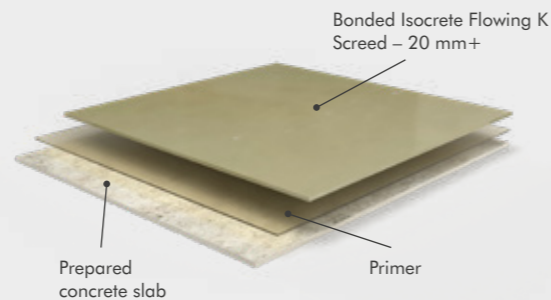
## Cost-effective, fast and precise screed installation

Our Isocrete Flowing K Screed delivers a beautifully well-levelled finish, is quick to apply and is ideal to use with underfloor heating systems. Our specialist teams can install three different screed solutions, according to the depth needed:

### Isocrete Flowing K Screed Bonded

The screed is applied bonded to a mechanically prepared substrate using specific primers. Ideal for levelling out uneven large areas of concrete floor.

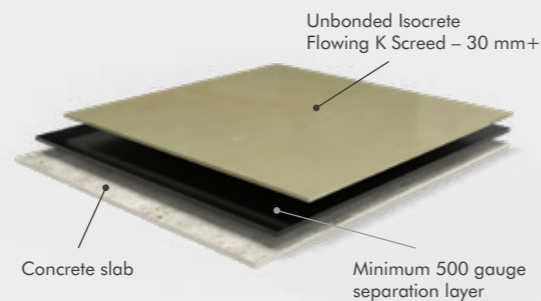
Isocrete Flowing K Screed bonded to slab  
– 20 mm minimum



### Isocrete Flowing K Screed Unbonded

The screed is applied unbonded over either a sheet damp-proof membrane or slab separating membrane (minimum 500 gauge). Ideal for thicker screed sections where insulation is not being applied.

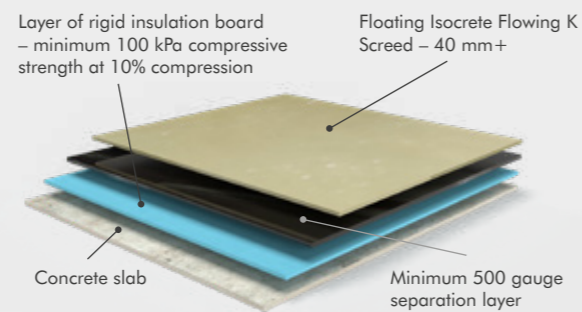
Isocrete Flowing K Screed unbonded to slab  
– 30 mm minimum



### Isocrete Flowing K Screed Floating

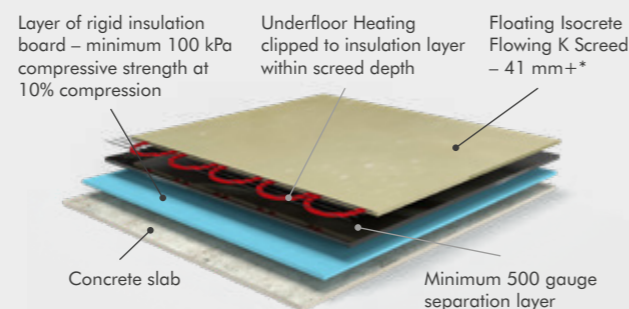
The screed is applied floated onto an insulation material.

Isocrete Flowing K Screed floating  
– 40 mm minimum



### Isocrete Flowing K Screed Floating with Underfloor Heating

Isocrete Flowing K Screed floating  
– 41 mm minimum (based on 16 mm pipe)



\*Based on 25 mm cover to the top of underfloor heating pipework and using a 16 mm underfloor heating pipe)

## TECHNICAL INFORMATION

### Isocrete Flowing K Screed (20–60 mm)

A flowing cementitious screed incorporating proprietary additives and graded sand to produce an early drying, high strength screed.

Suitable in applications that may be exposed to regular or permanent water contact.



#### Rapid Installation:

Up to 500 m<sup>2</sup> per day at nominal 50 mm thick and foot traffic in 24 - 48 hours.



#### Resistance:

High strength & resistance to construction traffic.



#### Protein & Laitance Free:

Will not harbour bacteria and no mechanical abrasion required.



#### Underfloor Heating:

Can be installed over underfloor heating (commissioned after 7 days).

### Technical Profile\*

FIRE RESISTANCE		
BS EN 13501-1	A1 <sub>fl</sub> (No contribution to fire)**	
IMPACT RESISTANCE		
BS 8204-1	Category A	
COMPRESSIVE STRENGTH (28 DAYS)		
EN 13892-2	25-30 N/mm <sup>2</sup>	C25/C30
FLEXURAL STRENGTH (28 DAYS)		
EN 13892-2	4-6 N/mm <sup>2</sup>	F4/F6
ADHESION TO C30 CONCRETE (28 DAYS)		
> 1 N/mm <sup>2</sup>		
DRYING SHRINKAGE		
< 0.1%		
PROTEIN CONTENT		Nil
LAYING TEMPERATURE		5–30°C
FLOW RING (DIN 1060)		230–260 mm
WET DENSITY (approx.)		2,200 kg/m <sup>3</sup>
DRY DENSITY (approx.)		2,000 kg/m <sup>3</sup>

SPEED OF CURE - <small>Drying time for finishes in good ambient well ventilated conditions, e.g. 20°C, 65% RH</small>	
Typically 14–21 days, dependent on drying conditions.	
Full Traffic	24 - 48 hours dependent on the ambient temperature and Relative Humidity (RH).

\*These figures are typical properties achieved in laboratory tests at 20°C and at 65% Relative Humidity.

\*\*Contains less than 1% organic material and is classified in accordance with BS EN 13501-1 as Class A1, without testing. (Commission Decision 96/603/EC as amended by Decision 2000/605/EC).



## Model Specification

<b>System</b>	Isocrete Flowing K-Screed
<b>Thickness</b>	20 – 60 mm
<b>Maximum Bay Size</b>	100 m <sup>2</sup> - with UFH 150 m <sup>2</sup> - without UFH

Preparatory work and application in accordance with manufacturer's instructions.

## Products Included In This System

<b>BONDED</b>	
<b>Primer</b>	Isocrete Primer @ 0.05 kg/m <sup>2</sup> (2 coats may be required on porous surfaces) Minimum Isocrete Flowing K-Screed thickness 20 mm
<b>UNBONDED</b>	
30 mm on 500 gauge separating membrane.	
<b>DPM</b>	Proprietary materials Minimum thickness 30 mm using Isocrete Flowing K-Screed C25 / C30, to be supplied and laid on a sound and clean proprietary damp proof membrane.
<b>FLOATING</b>	
<b>Insulation board / Extruded polyethylene</b>	Proprietary materials C25 / C30 recommended insulation strength of no less than 100 kPa @ 10% compression Minimum thickness 40 mm using Isocrete Flowing K-Screed C25 / C30, to be supplied and laid on a sound and clean proprietary insulation board.
<b>UNDERFLOOR HEATING (UFH)</b>	
<b>UFH</b>	Proprietary materials Minimum thickness 25 mm cover over pipes using Isocrete Flowing K-Screed C25 / C30.

Detailed application instructions are available upon request.

## Substrate Requirements

Concrete or screed substrate should be a minimum of 25 N/mm<sup>2</sup>, free from laitance, dust and other contamination. The substrate should be dry to 75% RH, tested

in accordance with BS8203 and free from rising damp and ground water pressure. If above 75% RH, Hydraseal DPM can be incorporated directly beneath the Isocrete Flowing K Screed.

## Installation Service

The installation can be carried out by a licensed contractor with a document quality assurance scheme. Obtain details of our approved contractors by contacting our customer service team or enquiring via our website [www.flowcrete.co.uk](http://www.flowcrete.co.uk).

## Drying Time

Moisture sensitive floor finishes can be installed when the screed is dry to 75% RH as per BS 8204. After 24/48 hours curing (without draughts) ensure the area has sufficient ventilation to allow the screed to dry.

## Protection on Completion

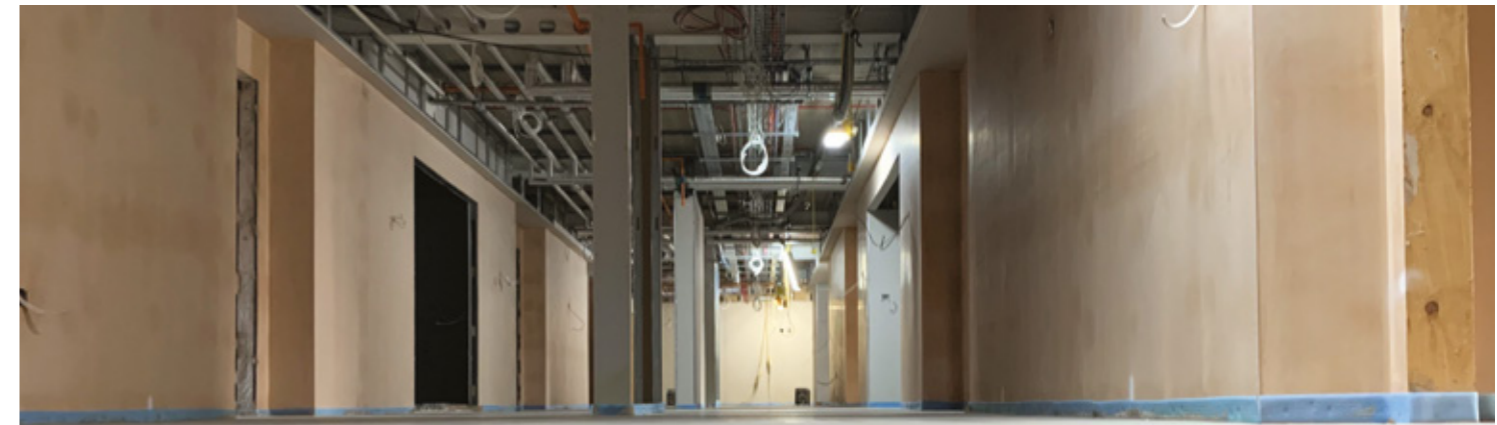
Ensure the screed is not subject to draughts and strong sunlight during the first 24 hours of curing as this may lead to cracking and crazing. Tape up doorways with polythene to prevent air movement. Prevent contamination by following trades e.g. plastering, including water spillage.

## Important Notes

Flowcrete products are guaranteed against defective materials and manufacture and are sold subject to our standard 'Warranty, Terms and Conditions of Sale', copies of which can be obtained on request. Warranty does not cover suitability, fit for purpose or any consequential or related damages. Please review warranty in detail before installing the products.

Flowcrete's products are guaranteed against defective materials and manufacture and are sold subject to its standard Terms and Conditions of Sale, copies of which can be obtained on request. Any suggested practices or installation specifications for the composite floor or wall system (as opposed to individual product performance specifications) included in this communication (or any other) from Flowcrete UK Ltd constitute potential options only and do not constitute nor replace professional advice in such regard. Flowcrete UK Ltd recommends any customer seek independent advice from a qualified consultant prior to reaching any decision on design, installation or otherwise.

System Datasheet written for Flowcrete UK Ltd. Please consult Technical Team in your own country region for specific details. [27/11/20, 02 UK]



# CASE STUDY

## Vida Court, Harrogate

New Build, Care Home  
by Caddick Construction

### About the project:

Caddick have been awarded the contract to design and build a new care home in Harrogate providing 67,000 sq ft of both residential and specialist dementia care accommodation across 100 bedrooms.

The works include the construction of eight individual and independent living houses, internal circulation areas for residents, all with level access to external gardens, communal space and health, and wellbeing facilities, as well as new offices for Vida Healthcare's Headquarters.

### The Floorzone Solution:

Working with an Approved Isocrete Flowing K Screed Licensee and delivered by one of its Distribution Partners, Flowcrete delivered the complete Floorzone solution for the 5000 m<sup>2</sup>+ project, incorporating Isowarm Underfloor Heating, Isocrete Flowing K Screed and Isocrete K Screed.

With tight construction deadlines, the combination of Isowarm UFH and Isocrete Flowing K Screed installed by one of Flowcrete's Approved Isocrete Licensees, was the ideal option as the client enjoyed the peace of mind of dealing with one single supplier and more simplified logistics.

'Because Isocrete Flowing K Screed is up to five times faster to install than traditional sand and cement screed, and can also be used at a reduced depth of 50 mm, the response time for the underfloor heating system installation was massively improved', said Daniel Gill, Area Sales Manager for Flowcrete.

Although the site boasts ample storage and lay down areas around the building, having the screed delivered via a state-of-the-art volumetric truck meant plant movement and waste creation around the site was minimised. Daniel Gill explains, 'once the truck is set in position, the screeding can immediately begin, with only a sand top up (if required) depending on the size of the pour – this frees up the Main Contractor from monitoring site-traffic, making the site a lot safer.'

The Vida Court project had arranged for Isocrete Flowing K to be poured over 10 days, which is a great time saver when compared to typically 40 days installation using a traditional sand and cement screed. For the Main Contractor, this meant a much easier sectional handover and reduced the number of multiple trade interfaces on site – speeding up the project.

Isocrete Flowing K Screed was successfully installed at a nominal 50 mm over insulation, which also included Flowcrete's popular Isowarm Underfloor Heating system. By opting for the integrated Floorzone offering, the client dealt with a single point of contact throughout the entire project, from specification through to installation, with the added benefit of a 10-year warranty for the subfloor system and screed combination.





# THE FLOORZONE

From concrete base to final floor finish, we have a solution for every stage of construction.

The Floorzone solution is a unique and environmentally friendly concept from Flowcrete, which addresses the complete flooring needs of any project from a single supplier. You can streamline your supply chain and make it more efficient by sourcing every element of the floor direct from one point of contact and under one manufacturer's warranty.

We have developed the Floorzone concept so that any development, regardless of scale, scope or sector, can benefit from a fast installation and high quality floor finish for a wide range of applications. The variety of systems and the different combinations, means that this simple specification solution can be utilised to create high-quality floor areas tailored to the precise functional, aesthetic, budgetary and construction requirements of each site.

To find out more, please visit:  
[www.flowcrete.co.uk/the-floorzone](http://www.flowcrete.co.uk/the-floorzone)

## Flooring Combinations

There are many factors to take into consideration when designing a flooring project. The purpose of the floor, type of traffic it will endure, the depth and type of screed needed, levels of flatness, location of movement joints, are just a few examples of the important factors that define a successful floor installation.

Isocrete Flowing K is suitable for use with the following flooring solutions from our Flowcrete range:

### Seamless Floor Finish

You can choose from Flowcrete's wide range of performance industrial and commercial seamless resin floor finishes. We offer a solution for every environment, no matter how challenging, and to suit every imaginable colour and style.

### Isocrete Acoustic-K

A highly effective underfloor soundproofing solution for controlling noise levels in multi-occupancy buildings. Isocrete Acoustic-K technology reduces impact and airborne sound passage between floor levels.

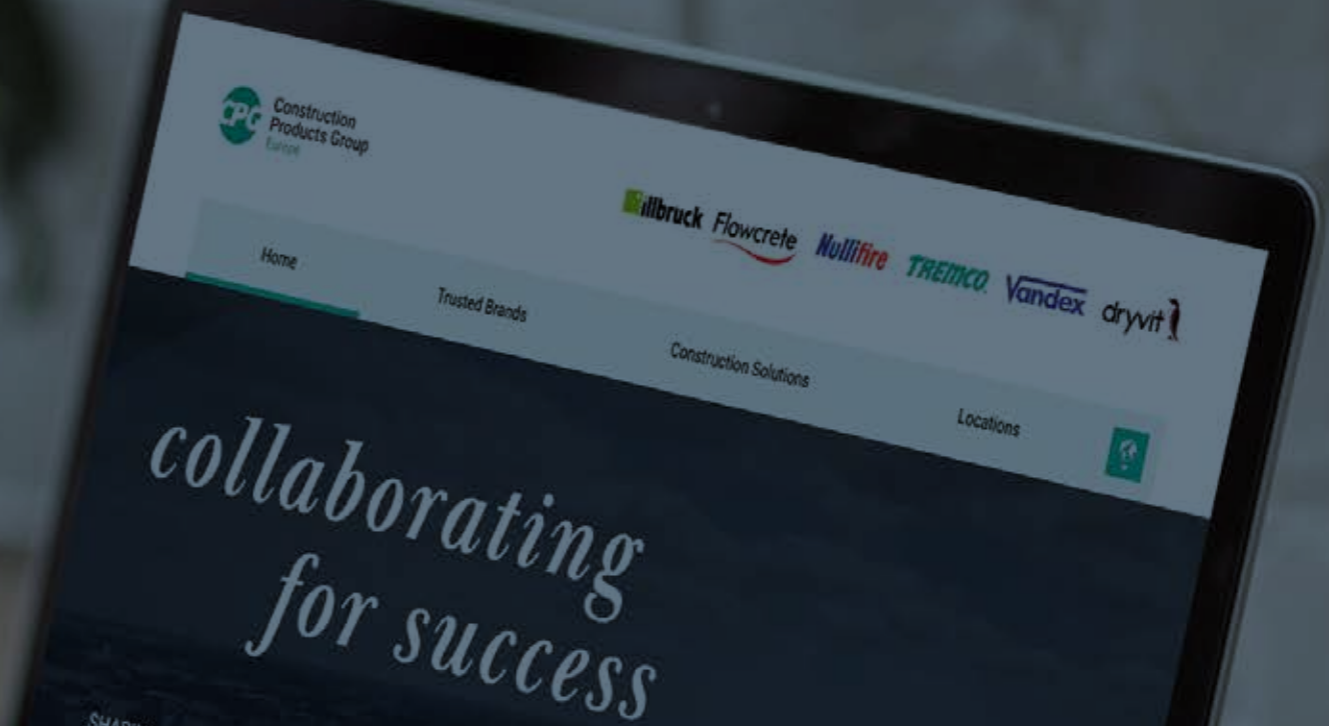
### Isowarm Under Floor Heating

Offering invisible, controllable heat where it is needed most, Flowcrete's underfloor heating system can be used to both warm and cool a building. Our systems have proved to deliver energy savings of up to 24% compared to traditional heating systems.

### Damp Proof Membranes, Primers, Levelling Compounds and Adhesives

CPG Europe has a full range of compatible products to complete our Floorzone portfolio. This offers you the peace of mind of tried and tested systems backed with a single-source warranty.





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 and Dryvit. With over 1,400 employees across Europe, we are committed to shaping 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.

**CPG Europe's Core Values**



Collaboration



Honesty & Integrity



Respect



Engagement



Sustainable

Europe's leading construction products brands...



**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.



**Sealing, bonding & insulation**

Window Insulation, Façade Construction, Exterior Insulation & EIFS, Structural & Inplant Glazing



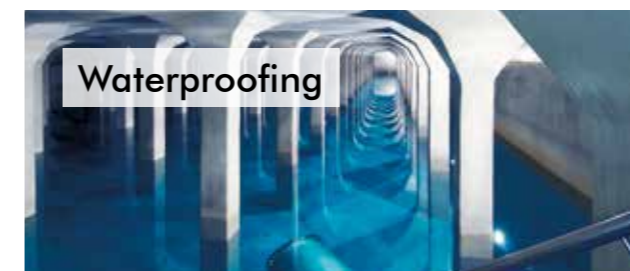
**Passive fire protection**

Intumescent Coatings, Fire Stopping



**Flooring**

Seamless Resin Flooring, Subfloor Preparation, Car Parking Structures



**Waterproofing**

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



**Roofing**

Liquid Applied Systems, Felt Systems, Vegetated Roofing





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