

## ISOCRETE K-SCREED

- ▶ combines consistency, high strength, rapid installation and excellent moisture control with compatibility to a number of bolt-on subfloor systems including underfloor heating and acoustic insulation.

# Isocrete K-Screed

 Isocrete K-Screed is installed exclusively by our network of licensed applicators

The key to a strong, reliable and sustainable floor is a quality screed product that will deliver the hidden strength guaranteed to meet Category A or B BRE screed test requirements (as per BS 8204-1) under a fast turnaround to allow the speedy installation of final floor finishes.

Flowcrete's Isocrete K-Screed has been a market leader in floor screeds since 1969, known in the industry for delivering 'the level best in floor screeds'.

Award-winning Isocrete K-Screed combines consistency, high strength, rapid installation and excellent moisture control with compatibility to a number of bolt-on subfloor systems including underfloor heating and acoustic insulation.

Containing a proprietary plasticising and accelerating admixture used to modify and enhance the performance of sand and cement based screeds, Isocrete K-Screed is chosen for its ability to consistently deliver a strong level platform on which to lay a host of floor finishes – including tiles, carpet, wood, vinyl and resin – on the fast track. Curing times can be as favourable as 2–4 days compared to the typical seven day cycle associated with traditional sand and cement screeds.

## Application Suitability



Healthcare



Education



Leisure



Retail



Airports



Transport

Flowcrete UK is proud to be part of the RIBA CPD Providers Network, offering the following seminars:

- ✓ How To Avoid Screed Failure
- ✓ Specifying Seamless Resin Terrazzo
- ✓ Underfloor Heating Systems: The Way Forward
- ✓ Decorative Resin Flooring for Public Areas
- ✓ The Correct Specification of Industrial Resin Flooring
- ✓ Car Park Decking: Protection, Strength and Aesthetics

To book, email [cpd@flowcrete.com](mailto:cpd@flowcrete.com)





## Performance Benefits



Guaranteed to meet Category A or B BRE screed test requirements as per BS8204 -1



Provides a durable, level surface for the installation of final floor finishes



Contains a plasticising and accelerating admixture to deliver a fast track solution



Proven performance since 1969, meeting ISO 9001 and BS 8204-1 standards



High compressive strength (30 N/mm<sup>2</sup>) compared to sand and cement screeds (15–20 N/mm<sup>2</sup>)



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K-Master

Can be machine applied, using the K-Master to improve site conditions and installation quality



Compatible with Isowarm Underfloor Heating and Isocrete Acoustic K-Foam



Allows for the early installation of moisture sensitive finishes

# Isocrete K-Screed



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**Award-winning Isocrete K-Screed delivers strength for high traffic areas, combined with rapid installation, high speed construction and excellent moisture control...**

Containing the innovative K-additive, a plasticising and accelerating admixture used to modify and enhance the performance of sand/cement based screeds; Isocrete K-Screed delivers a strong and level platform on which to install a host of floor finishes and coverings, including moisture sensitive finishes.



Category A guaranteed (BS 8204-1)



Early installation of sensitive finishes



BBA approved



Full traffic after 7 days



Excellent workability properties



Bonded, unbonded, UFH and floating

## Getting Contractors off their Hands and Knees

Isocrete K-Screed can be machine-applied using a revolutionary technique that offers improvements to health and safety issues involved in flooring projects.

Taking the pressure off the backs and joints of floor screeders, the Isocrete K-Master machine delivers a safer, flatter subfloor installed up to four times faster than traditional methods.

Using the K-Master, licensed applicators can achieve SR1 surface regularity (BS 8204-1) compared with SR2 when hand applied. The smooth, level screed is suitable for use with thin section floor finishes like vinyl or carpet and can be installed in areas of light tolerance or to falls.



# Isocrete K-Screed and Fast K-Screed Technical Profile

## Isocrete K-Screed (Standard)

COMPRESSIVE STRENGTH (28 DAYS)		
BS EN 13892-2	>25 N/mm <sup>2</sup>	
BRE TEST CATEGORY		
BS 8204-1	Category A	
SPEED OF CURE	10°C	20°C
Working Time	2–3 h	2 h
Light Foot Traffic	48 h	24 h
Full Traffic	7 d	7 d
Curing Under Polythene	7 d	7 d

## Isocrete K-Screed (Heavy Duty)

COMPRESSIVE STRENGTH (28 DAYS)		
BS EN 13892-2	>30 N/mm <sup>2</sup>	
BRE TEST CATEGORY		
BS 8204-1	Category A	
SPEED OF CURE	10°C	20°C
Working Time	2–3 h	2 h
Light Foot Traffic	48 h	24 h
Full Traffic	7 d	7 d
Curing Under Polythene	7 d	7 d

## Isocrete Fast K-Screed (Standard)\*

COMPRESSIVE STRENGTH (28 DAYS)		
BS EN 13892-2	>25 N/mm <sup>2</sup>	
BRE TEST CATEGORY		
BS 8204-1	Category A	
SPEED OF CURE	10°C	20°C
Working Time	50 m	20 m
Light Foot Traffic	18 h	8 h
Full Traffic	5 d	3 d
Curing Under Polythene	12 h	12 h

## Isocrete Fast K-Screed (Heavy Duty)\*

COMPRESSIVE STRENGTH (28 DAYS)		
BS EN 13892-2	>30 N/mm <sup>2</sup>	
BRE TEST CATEGORY		
BS 8204-1	Category A	
SPEED OF CURE	10°C	20°C
Working Time	50 m	20 m
Light Foot Traffic	18 h	8 h
Full Traffic	5 d	3 d
Curing Under Polythene	12 h	12 h

## Isocrete Bagged K-Screed

Isocrete K-Screed comes pre-mixed in 25kg bags, eliminating the need to blend each component on site.

The end result delivers a BS 8204-1 Category A screed with ease on site.



Complete package containing cement, K-additive and fibres



Fast drying times for tight construction schedules



Manufactured in a BSEN ISO 9001 environment



Delivers better strength than sand & cement screeds



Suitable for bonded, unbonded, floating and UFH applications



Combines components for reduced deliveries

\*Drying time to receive finishes (BS 8203) from removal of curing polythene sheet (50mm thickness at 50% Relative Humidity) = 14 d (10°C), 7 d (20°C)

# Isocrete Screedfast

A specially formulated cement, giving a very rapid drying screed...

Offering high early strength, Isocrete Screedfast is suitable when the screed needs to be trafficked or overlaid quickly.



Early traffic by following trades (3 h)



Hand applied



Early installation of sensitive finishes (24 h)



Excellent workability properties



Low shrinkage, minimises cracking

## Technical Profile

### APPLICATION TYPE

✓ Bonded    ✓ Unbonded    ✓ Floating

### DENSITY (APPROX)

1,800–2,000 kg/m<sup>3</sup>

### COMPRESSIVE STRENGTH

BS EN 13892-2	>25 N/mm <sup>2</sup> (1000*)
	>30 N/mm <sup>2</sup> (2000**)

### IMPACT RESISTANCE

BS 8204-1	Category B (1000)
	Category A (2000)

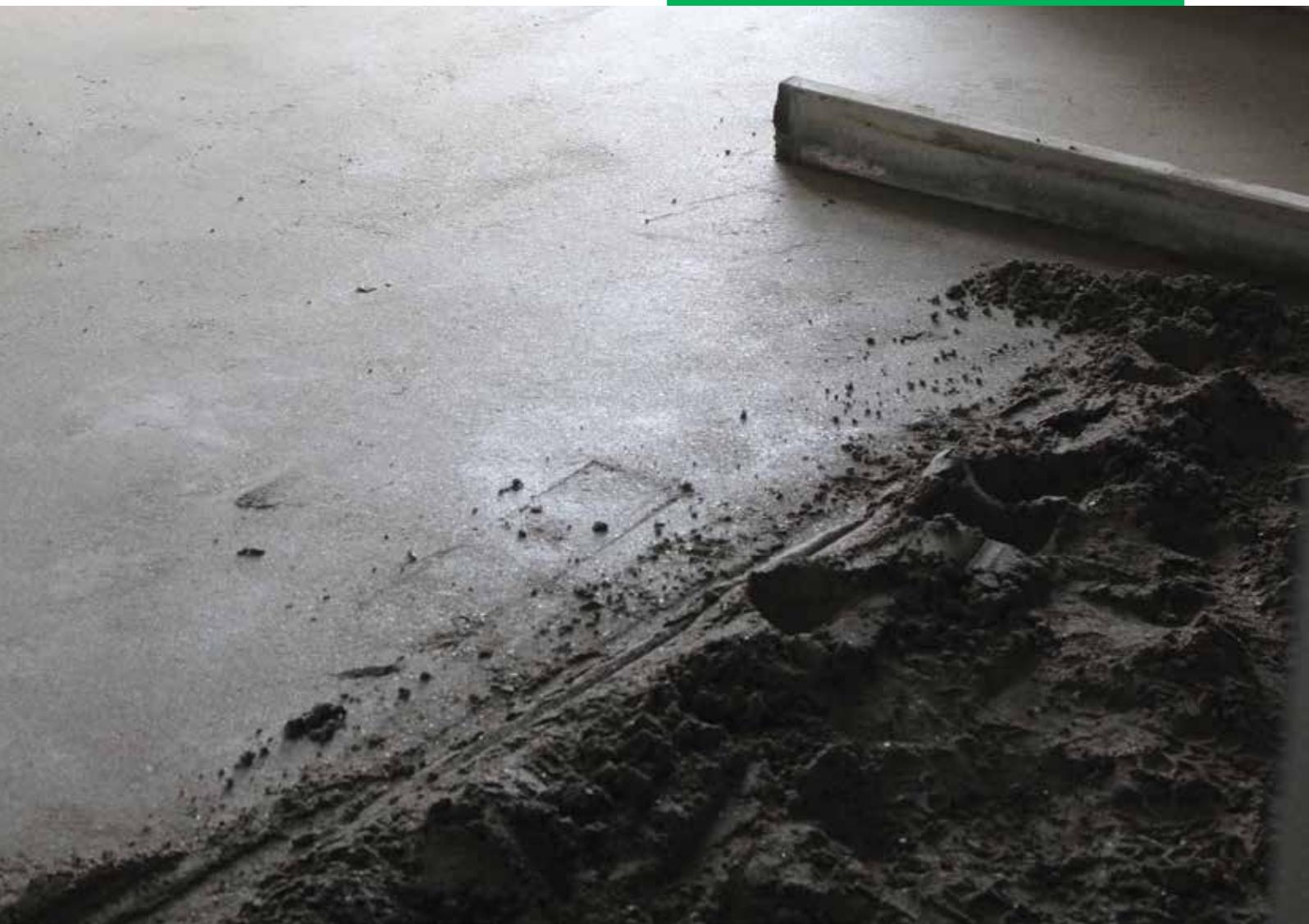
### BOND STRENGTH

>1.5 N/mm<sup>2</sup>

### SPEED OF CURE

	10°C	20°C
Working Time***	25 m	15 m
Light Foot Traffic	5–10 h (1000) 3–6 h (2000)	5 h (1000) 3 h (2000)
Full Traffic	3 d (1000) 2 d (2000)	2 d (1000) 1 d (2000)
Drying time to 75% RH (BS 8203)	4–8 d (1000) 2 d (2000)	3–4 d (1000) 1 d (2000)

\*Screedfast 1000 (mix ratio 1:4 by vol) = 1000    \*\*Screedfast 2000 (mix ratio 1:3 by vol) = 2000.



# Isocrete Isopol SBR

A styrene butadiene polymer latex screed additive and bonding agent...

Used to produce polymer modified wearing screeds for heavy duty & industrial flooring and for rapid drying, levelling screeds.



Toppings can be applied at low thickness



Plasticising effect, low water:cement ratios



Excellent resistance to water and vapour



Low shrinkage, minimises cracking



Improved strength and resistance



Can be used externally

## Technical Profile

APPLICATION TYPE		
✓ Bonded	✓ Unbonded	✓ Floating
FRESH WET DENSITY		
2,200 kg/m <sup>3</sup>		
COMPRESSIVE STRENGTH	7 DAYS	28 DAYS
BS EN 13892-2	>30 N/mm <sup>2</sup>	>45 N/mm <sup>2</sup>
FLEXURAL STRENGTH	7 DAYS	28 DAYS
BS EN 13892-2	>6 N/mm <sup>2</sup>	>7 N/mm <sup>2</sup>
TENSILE STRENGTH	7 DAYS	28 DAYS
BS EN 13892-2	>2.5 N/mm <sup>2</sup>	>3.5 N/mm <sup>2</sup>
ADHESION	7 DAYS	28 DAYS
	>1.5 N/mm <sup>2</sup>	>2.0 N/mm <sup>2</sup>
SHRINKAGE		
<400 microstrain		
SPEED OF CURE	10°C	20°C
Working Time	2–3 h	2 h
Light Foot Traffic	2 d	1 d
Full Traffic	7 d	7 d
Curing Under Polythene	2–3 d	2–3 d

## Technical Profile

APPLICATION TYPE		
✓ Bonded		
THICKNESS		
Single Layer (bonded)	20–50mm	
Two Layers (bonded)*	50–80mm	
Stair Treads (bonded)	25mm minimum	
Stair Risers (bonded)	20–30mm	
DENSITY (APPROX)		
2,150–2,250 kg/m <sup>3</sup>		
COMPRESSIVE STRENGTH		
BS EN 13892-2	>55 N/mm <sup>2</sup>	
SPEED OF CURE	10°C	20°C
Working Time***	2–3 h	2 h
Light Foot Traffic	4 d	3–4 d
Full Traffic	14 d	10–14 d
Curing Under Polythene	5 d	5 d

\*First layer to be semi-dry, immediately followed by a 30mm layer of finishing grade material laid monolithic with the base.

# Isocrete Isogran

A modified granolithic wearing screed with Isocrete Polymer 70...

Provides a strong wear and impact resistant, heavy duty surface that can also be used as a base for resin finishes.



Resistant to oil, petrol and grease



Can be used for stair treads and risers



Can be used to form coves



Strong, heavy duty wearing screed



Low maintenance

## Ancillary Products

	DESCRIPTION	USES	DRYING TIME (foot traffic) (20°C)	CURE TIME (to receive floor finish)	THICKNESS
<b>Isocrete M-Bond</b>	A single coat, solvent free, epoxy bonding agent ideal for bonding screeds, delivering the advantages of bonded screed construction; eliminating the need for reinforcement.	Used as a bonding agent for semi-dry screeds.	24 h	After curing of screed	<1mm
<b>Isocrete M-Bond Extra</b>	A two coat system that can be used not only as a bonding agent but also to provide a full damp proof membrane (DPM) between the concrete and screed.	Ideal for use in shower areas where screeds are laid to falls incorporating a damp proof membrane.	24 h	After curing of screed	<1mm
<b>Isocrete Primer</b>	An acrylic emulsion based primer for Isocrete cement based self leveling screeds.	For priming concrete and impermeable surfaces prior to screed application.	3 h	3 h	<1mm
<b>PHS</b>	An ultra low viscosity resin used to refurbish and re-strengthen failed systems by penetrating the defective screed, filling voids and bonding material together to provide a very high strength floor screed.	Ideal where work needs to be completed to a tight deadline saving time, money and disruption in refurbishment programmes.	8 h	12 h	N/A
<b>Isocrete Acoustic K-Foam*</b>	A resilient layer with junctions formed using a prefabricated edge strip.	For new build or refurbishment of separating floors where resistance to the passage of sound is required.	N/A	After curing of screed	9mm
<b>Isowarm Underfloor Heating*</b>	A complete underfloor heating system incorporating insulation, pipework and associated retaining system and screed.	Efficient heating of many types of building including most commercial and residential applications.	N/A	After curing of screed	16mm (pipe diameter)
<b>Hydraseal DPM</b>	A liquid applied, epoxy resin DPM that is both solvent and water free, designed to withstand moisture vapour from substrates allowing the immediate installation of floor finishes.	Single and two coat systems for use where the substrates are 75–100% RH. (1 coat = 75–85%, 2 coat = 85–100%)	24 h	1 d	<1mm
<b>Flowcem</b>	A self smoothing screed comprising epoxy modified cement that acts as a surface damp proof membrane and underlayment allowing the early installation of moisture sensitive floor finishes.	Ideal for use in medium to heavy traffic commercial environments where the rapid installation of a final floor finish is required.	16 h	2 d	2mm

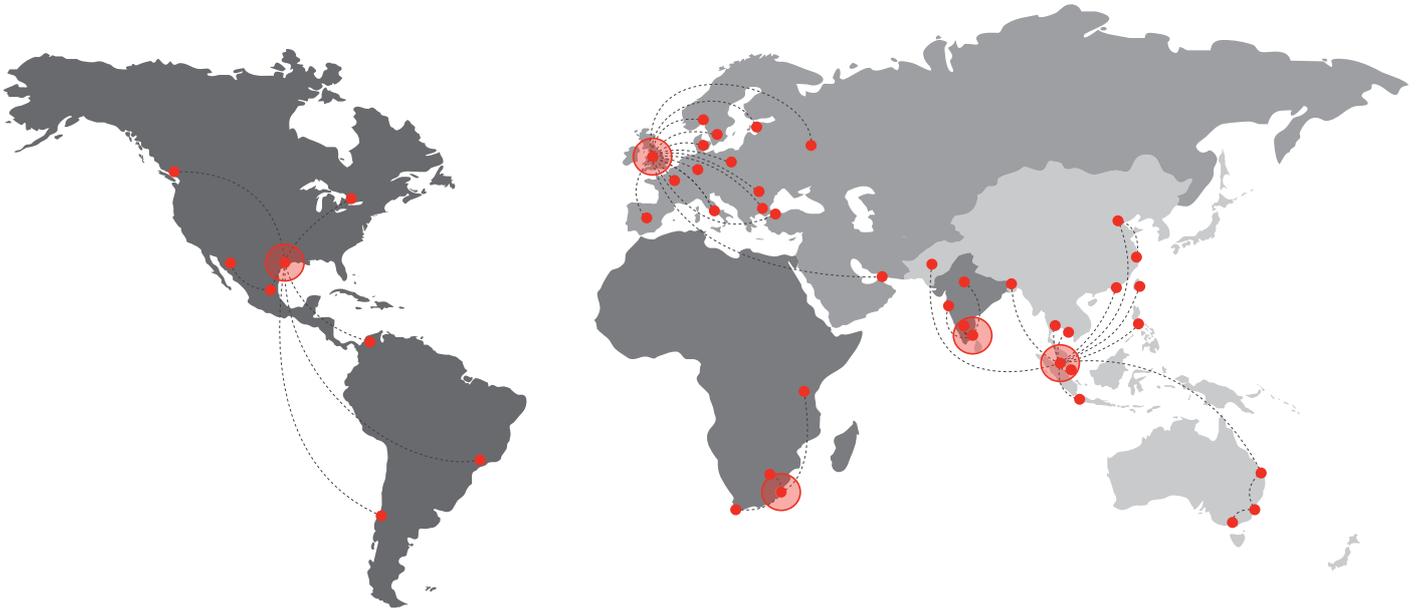
\*Isocrete K-Screed can be installed in conjunction with Isowarm Underfloor Heating & Isocrete Acoustic K-Foam as part of the Floorzone package, a single source build up from slab to surface that simplifies the specification process. All products are provided from one supplier.





# Common Screeding Terms Explained

<b>BBA</b>	The BBA is an approval and certification authority for the construction industry. BBA Approval is recognised by building control, government departments, architects, local authorities, specifiers and industry insurers.	<b>Ordinary Portland Cement</b>	Ordinary Portland Cement is a common cement blend comprising a ground limestone-based clinker and calcium sulphate. It is often considered bad for the environment as its production generates equal amounts of CO <sup>2</sup> .
<b>Bonded Screed</b>	A bonded screed is laid on a prepared concrete substrate and bonded using a PVA, SBR or epoxy resin bonding agent. Bonded screeds are ideal for thinner applications where heavy loads are expected.	<b>Partially Bonded Screed</b>	A cheap but very problematic method of installation due to its tendency to crack as a result of a weak bond. Isocrete Floor Screeds under 50mm are never laid partially bonded.
<b>BS 8204-1: 2003 + A1:2009</b>	BS 8204-1:2003 is a British Standard giving recommendations for the design and laying of concrete bases and cementitious leveling screeds to receive in situ floorings.	<b>Power Floated Screed</b>	Power float machines are fitted with circular pans to help smooth the screed before metal blades are rotated over the surface to achieve a hardened surface. Power floated screeds have a flat smooth dense finish.
<b>Cement</b>	Cement is a binding material comprising of calcined mixtures of clay and limestone, usually mixed with water, sand and gravel aggregates to form concrete.	<b>Proprietary Screed</b>	A proprietary screed is a mix designed screed that offers a consistency and reliability that traditional sand:cement screeds can lack. Proprietary screeds are often installed by licensed applicators, offering peace of mind.
<b>Cementitious Screed</b>	Cementitious screeds contain cement that act as a binder in the screed formulation. Cementitious screeds can either be a traditional sand:cement mix or a proprietary screed mix.	<b>Resin Bonded Screed</b>	Epoxy resin bonding agents can be used to bond screeds to the substrate, meaning that the screed can be laid thinly without the risk of cracking or curling. Resins can be applied in multiple layers to provide a DPM.
<b>Concrete</b>	Concrete comprises a blend of cement, water and aggregates such as coarse gravel, limestone or gravel alongside fine sand. The cement reacts with the water, creating a binding agent for the aggregates.	<b>Screed</b>	A screed is a layer of a well compacted mixture of cement and fine aggregate that is applied to a base at the appropriate thickness and that has a surface suitable for receiving a floor finish.
<b>Concrete Slab</b>	A concrete slab is usually the substrate upon which a screed is laid, whether partially or fully bonded, unbonded or floating. In some applications, the concrete slab will require preparation to receive a screed.	<b>Self Leveling Screed</b>	Sometimes referred to as self smoothing, self leveling screeds spread with only a partial aid, resulting in a flat and smooth surface.
<b>Drop Hammer Test / ISCR (In-Situ Crushing Resistance)</b>	In order to measure the strength and durability of a screed, a 4kg weight is used to make four consecutive blows on the screed surface. The depth of the indent is used to give an indication of the soundness of the screed.	<b>Semi Dry Cementitious Screed</b>	Semi-dry cementitious screeds are cement based, semi-dry hand trowel applied screeds that deliver a high strength sub-floor finish that is resistant to construction traffic.
<b>Floating Screed</b>	Floating screeds are chosen for both thermal and acoustic requirements and are laid on insulation.	<b>SR Rating (Surface Regularity)</b>	A floor screed's SR Rating gives an indication of the flatness of the installed product, expressed in the scale SR1, SR2 and SR3. Environments requiring the flattest possible floor surface would be aiming for an SR1 rating.
<b>Granolithic Screed</b>	A granolithic screed is an extremely hard wearing screed that can be left uncovered in areas subject to heavy traffic to provide a durable floor finish. Granolithic screeds usually contain a granite aggregate.	<b>Traditional Screed</b>	A traditional screed typically has a sand:cement ratio of 3-5:1 and is mixed on site. Traditional Screeds can be reinforced with a mesh or Polypropylene Fibres.
<b>Movement / Expansion Joint</b>	A mechanism to prevent the cracking of a screed resulting from heat induced expansion and contraction or the movement of a building.	<b>Unbonded Screed</b>	Unbonded screeds are not bonded to the substrate, but rather laid on top of a separating membrane that may act as a DPM. As the screed is not bonded, these applications are usually thicker to ensure that there is no movement.
<b>Non Cementitious Screed</b>	Non cementitious screeds include substitutes for cement in order to combat the environmental issues associated with the production of the material.		



## Flowcrete

World leader in seamless resin flooring solutions and other specialist coatings.

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