

**Flowcrete**  
for the world at your feet

**Isocrete**  
floor screeds



## ISOCRETE FLOOR SCREEDS

- ▶ A range of Leveling Floor Grouts & Screeds designed to deliver the necessary strength required to install a quality floor finish.

# Cementitious Isocrete Floor Screeds & Grouts

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Isocrete Floor Screeds are a range of fast-cure, cement based floor screeds, used for screeds and underlayments used for sloping, patching and leveling the concrete substrate prior to the installation of floor finishes including resinous systems.

Isocrete Floor Screeds are easily installed, can be applied to green concrete and offer fast-cure properties to reduce downtime. Once cured, Isocrete Floor Screeds offer excellent compressive strength, moisture resistance and non-shrinkage properties.

Grouts offering enhanced durability and resistance are available for industrial areas and manufacturing facilities subject to heavy load bearing and high traffic conditions.

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## Performance Benefits



Meets BS 8204-1 criteria



Flowable & self-smoothing



High compressive strength at a reduced thickness



Can be used in conjunction with the majority of floor finishes



Can be laid at a reduced thickness



Lower tendency to split / separate on overwatering



Easy & quick to apply



Faster drying times & reduced shrinkage



Good thermal conductivity with underfloor heating

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## Application Suitability



Healthcare



Education



Leisure



Food & Beverage



General Manufacturing



Pharmaceutical

## Technical Profile

### DENSITY (APPROXIMATELY)

1,800—2,000 kg/m<sup>3</sup>

### BRE TEST CATEGORY

BS 8204-1

Category A

### COMPRESSIVE STRENGTH (28 DAYS)

BS EN 196

Standard K-Screed:  
>25 N/mm<sup>2</sup>  
Heavy Duty K-Screed:  
>30 N/mm<sup>2</sup>

### SPEED OF CURE

	10°C	20°C
Working Time	2–3 hrs	2 hrs
Light Foot Traffic	48 hrs	24 hrs
Full Traffic	7 days	7 days
Full Chemical Cure	7 days	7 days

## Isocrete K-Screed

A semi-dry cementitious screed, incorporating proprietary additives to produce an early drying and high strength screed.

Designed to speed up construction schedules, the system can be modified to produce Isocrete Heavy Duty K-Screed and is suitable for high traffic areas such as transport and retail concourses.



High resistance to impact



Full traffic after 7 days



Excellent workability properties





## Technical Profile

FIRE RESISTANCE	
BS 476-7	Class 1 (spread of flame)
IMPACT RESISTANCE	
BS 8204-1	Category A
THERMAL RESISTANCE	
50°C Max	
ULTIMATE COMPRESSIVE STRENGTH	
BS EN 196	35 N/mm <sup>2</sup> (No loss in compressive strength when used in composite format)
FLEXURAL STRENGTH	
BS EN 196	8N/mm <sup>2</sup>
ABRASION RESISTANCE	
Taber Abrader (H22 wheels, 1000 cycles, 1 kg load)	1.7g loss

## Isocrete Self Level (3–10 mm)

A strong, fast drying, cement-based underlayment allowing screeds to be easily levelled prior to the installation of floor finishes.

Delivering fast setting and drying times, this screed is ideal for busy industries that would benefit from minimised downtime.



Pump applied



Areas of heavy traffic



Suitable with underfloor heating



Foot traffic in 2–4 hours

## Technical Profile

### FIRE RESISTANCE

BS 476-7 Class 1 (spread of flame)

### IMPACT RESISTANCE

BS 8204-1 Category A

### THERMAL RESISTANCE

50°C Max

### COMPRESSIVE STRENGTH (28 DAYS)

BS EN 196 35 N/mm<sup>2</sup>

### FLEXURAL STRENGTH

BS EN 196 10 N/mm<sup>2</sup>

### ABRASION RESISTANCE

BS 8204-2 Class AR2

### SHORE D HARDNESS

88

## Flowscreed Industrial Top (5–30 mm)

A single component, quick drying, cement based screed for levelling floors, laid via pump or hand.

Strong and durable, this screed is used for fast track refurbishment and new construction where there is a demand for a smooth surface such as in factories and warehouses.



Hand or pump applied for smooth finish



High strength and durability



Fast drying for reduced schedules



# Common Screeding Terms Explained

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## Bonded Screed

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.

## Cement

Cement is a binding material comprising of calcined mixtures of clay and limestone, usually mixed with water, sand and gravel aggregates to form concrete.

## Cementitious Screed

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.

## Concrete

Concrete comprises a blend of cement, water and aggregates such as gravel, limestone or gravel alongside fine sand. The cement reacts with the water, creating a binding agent for the aggregates.

## Concrete Slab

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.

## Drop Hammer Test / ISCR (In-Situ Crushing Resistance)

In order to measure the strength and durability of a screed, a 9lb 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.

## Floating Screed

Floating screeds are chosen for both thermal and acoustic requirements and are laid on insulation.

## Granolithic Screed

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.

## Movement / Expansion Joint

A mechanism to prevent the cracking of a screed resulting from heat induced expansion and contraction or the movement of a building. These joints are normally filled with elastomeric sealants.

## Non Cementitious Screed

Non cementitious screeds include substitutes for cement, many times polymer based, in order to combat the environmental issues associated with the production of the material.

## Ordinary Portland Cement

Ordinary Portland Cement is a common cement blend comprising a ground limestone-based clinker and calcium sulfate. It is often considered bad for the environment as its production generates equal amounts of CO<sub>2</sub>.

## Partially Bonded Screed

An inexpensive but very problematic method of installation due to its tendency to crack as a result of a weak bond.

## Power Trowelled Screed

Power trowel machines are fitted with circular blades to help smooth the screed. The metal blades are rotated over the surface to achieve a hardened surface. Power trowelled screeds have a flat smooth dense finish.

## Proprietary Screed

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.

### Resin Bonded Screed

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 Damp Proof Membrane (DPM).

### Screed

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.

### Self Leveling Screed

Sometimes referred to as self smoothing, self leveling screeds spread with only a partial aid, resulting in a flat and smooth surface.

### Semi Dry Cementitious Screed

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.

### SR Rating (Surface Regularity)

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.

### Traditional Screed

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 to enhance strength and durability.

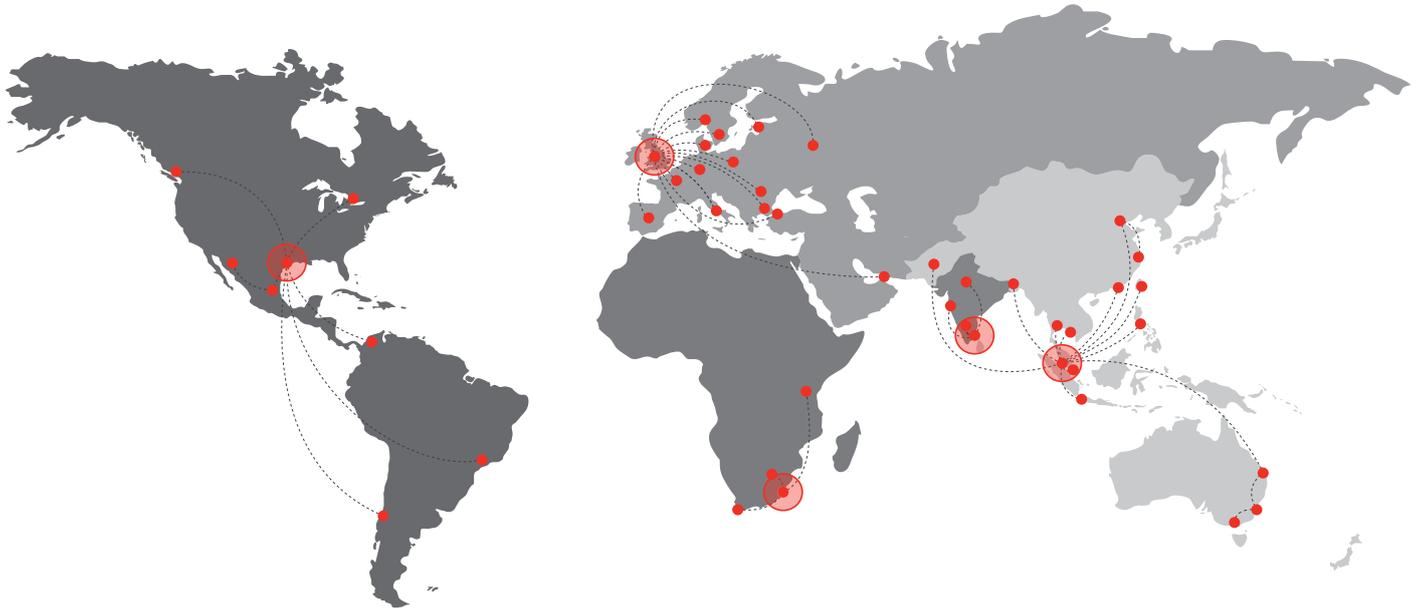
### Unbonded Screed

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.



### Suitable Floor Finishes

✓	Epoxy Resin
✓	Cementitious Urethane
✓	Seamless Terrazzo
✓	Ceramic Tiles
✓	Carpet
✓	Wood / Laminate
✓	Vinyl
✓	Cork
✓	Wood Block Linoleum



## Flowcrete

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

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