

# Tekcem

## 220 Rapid



Very rapid smoothing / fine levelling of sound floor surfaces prior to application of floor finishes.

### OVERVIEW

Tekcem 220 Rapid is ideal for application over sound substrates including concrete and sand / cement screeds. It can be applied at thicknesses from 2mm to 20mm in one application.

Tekcem 220 Rapid is very fast setting and can receive a tiled floor finish at 50 to 60 minutes or most other types of finish after 90 minutes (at 20°C).

It is shrinkage compensated and provides the perfect smoothing material for most floor finishes including thinner vinyl.

### TECHNICAL DATA

Packaging	20kg lined paper sacks	
Water addition	4.5 - 5.0L per 20kg unit	
Working time	10 - 15 minutes at 20°C	
Time to receive tiled floor finishes	50 to 60 minutes	
Time to receive resilient floor finishes	90 minutes	
Application thickness	2 to 20mm	
Consumption of powder per mm	1.7kg/m <sup>2</sup> /mm	
Compressive strength	1 day	>20MPa
	7 days	>30MPa
	28 days	>35MPa
Flexural strength	1 day	>4MPa
	7 days	>7MPa
	28 days	>10MPa

### BENEFITS

- Can be applied from 2 to 20mm in one pour.
- Very rapid setting allows fast overlay times.
- Light foot traffic after 30 minutes.
- Protein free.
- Shrinkage compensated.
- Single part, just add water.
- High durability.

### COVERAGE

Applied thickness	Approx. coverage per 20kg
3mm	4m <sup>2</sup>
5mm	2.4m <sup>2</sup>
10mm	1.2m <sup>2</sup>
20mm	0.6m <sup>2</sup>

## SETTING NEW LEVELS

The Screed Development Centre  
Unit 5 The Business Centre, Barlow Drive, Winsford,  
Cheshire CW7 2GN

[www.tekcem.co.uk](http://www.tekcem.co.uk)

Sales: 03300 555 227  
Technical: 03300 553 714

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### TOOLS REQUIRED

- Steel trowel
- Spiked roller
- Mixing bucket, slow speed drill and paddle

Wash all tools thoroughly with water directly after use.

### SURFACE PREPARATION

Before starting, all substrates must be clean and dry. Remove all dust, dirt, laitance, oil, grease and other contaminants that may affect adhesion. Where traces of adhesive remain, these must be strong, sound and well adhered to the surface. Sub floors directly to earth must have a DPM.

### SUBSTRATES

#### Concrete/screed:

Ensure new concrete is confirmed dry via consistent moisture readings across the whole surface. Sand/cement screeds must have a surface relative humidity reading of less than 75% RH before work can commence.

If it is a new screed, allow 1 day per mm for drying. Remove any laitance from the surface mechanically and remove all dust and debris, ideally by vacuum. It is necessary to prime sand/cement screeds to aid adhesion, maintain workability and prevent air bubbles rising to the surface. Prime with Tekprime diluted 3 parts water to 1 part neat Tekprime. Very porous substrates will require more than one coat.

#### Ceramic/quarry/stone tiles:

Make sure the surface is clean and free of loose dirt and dust. Prime the surface with Tekprime diluted 1 part water to 1 part neat Tekprime mixed with a little cement and sand to form a brush on bonding slurry.

#### Calcium sulphate screed:

Ensure the calcium sulphate screed is confirmed dry via consistent moisture readings across the whole surface.

Calcium sulphate screeds must have a surface relative humidity reading of less than 75% RH before work can commence. If it is a new screed, allow 1 day per mm for drying for depths up to 40mm and 2 days per mm thereafter.

Remove any laitance from the surface mechanically and remove all dust and debris, ideally by vacuum.

Calcium sulphate screeds must be sealed prior to applying Tekcem 220 Rapid by applying one coat of Tekprime A diluted 3 parts water to 1 part neat Tekprime A and allow to dry, followed by a second coat of neat Tekprime A.

#### Underfloor heating:

The underfloor heating must be commissioned prior to the application of Tekcem 220 Rapid. When applying Tekcem 220 Rapid onto existing underfloor heating the heating must be switched off 1 week prior to application to allow the substrate to cool sufficiently. Once Tekcem 220 Rapid has been applied, allow 1 week before switching the heating on. Start with a low temperature, gradually increasing the temperature (eg by 2°C per day) over a 2 week period.

#### Power floated concrete:

Ensure the surface has been allowed 7 days to cure. Power floated concrete can leave a loose top layer and/or laitance once it has cured. Remove the loose top layer and any laitance from the surface mechanically and remove all dust and debris ideally by vacuum. Once all laitance and/or loose material have been removed, prime the surface with Tekprime diluted 3 parts water to 1 part neat Tekprime.

### MIXING

Slowly mix 20kg of Tekcem 220 Rapid powder to 4.5 litres of water. Ideally use an electric paddle. Add the powder slowly to avoid clumping. Continue to mix until a smooth uniform consistency is achieved. If a slightly more fluid mix is required more water can be added whilst mixing. Up to 5.0 litres maximum per 20kg unit can be added. Do not exceed 5.0 litres as this will adversely affect strength and surface finish and will extend drying and overlaying times.

When the desired consistency is obtained allow to stand for 2 minutes before remixing prior to application. Ensure that each mix is used without delay as it will only remain workable in the bucket for a maximum of 10 minutes.

NOTE: Due to the speed and short open time it may be preferable to mix half bag quantities.

### APPLICATION

Apply by pouring to the desired thickness and trowel finish to a maximum of 20mm. If greater thickness is required allow to dry between layers of not more than 20mm. The use of a spiked roller will assist with removal of air and is recommended.

Tekcem 220 Rapid will begin curing in 20 to 25 minutes and should be "walkable" after approximately 40 minutes. These times may be decreased by higher temperatures or increased if colder.

Tekcem 220 Rapid must be suitably dry before overlaying with floor finishes. Typically this will be after 50 to 60 minutes for tiles or 90 minutes for most

other floor finishes. It is the responsibility of the floor finishes applicator to ensure that the residual moisture in the material is suitable.

### LIMITATIONS

The application of Tekcem 220 Rapid should only be carried out when the floor temperature is 5 - 30°C and the ambient relative humidity is below 75%. These conditions should be maintained during application and drying. Do not use in areas subject to permanent water immersion.

### WARNING

The information provided in this datasheet corresponds to the best of our expert knowledge and experience. Whilst it is true and accurate to the best of our knowledge, it may contain information which is unsuitable under certain circumstances since materials, site conditions and method of application vary with each application. Tekcem Ltd cannot be held responsible for any loss or damage due to incorrect use or from the possibility of variations in working conditions and/or workmanship beyond our control. The user alone is responsible for any consequences deriving from the product.

### HEALTH AND SAFETY

This product is not classified under the Chemicals Hazard Information and Packaging for Supply Regulations. A Material Safety Data Sheet relating to this product can be obtained from Tekcem Ltd. Please dispose of packaging and waste responsibly.

### STORAGE AND SHELF LIFE

Six months in unopened bags and stored under good, cool and dry conditions.

Tekcem Ltd The Screed Development Centre Unit 5 The Business Centre Barlow Drive, Winsford Cheshire CW7 2GN	
Cementitious screed material for use internally in buildings	
EN 13813 Class CT-C30-F10	
Reaction to fire	E
Compressive strength	C35
Flexural strength	F10
Release of corrosive Substances	CT

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