

# FastChem Technologies The Fast Chemistry for Construction

### 5.09 FAST FLOW CRETE 930

Cement Based, Self Levelling Floor Screed

#### PRODUCT DESCRIPTION

Fast Flow Crete, is cement based and suitable for thin and thick application at a time, ready to use, self levelling floor screed.

#### Complies with the EN

#### 13813 Fields of Application

- In doors and in dry environment,
- In hospitals,
- In stores,
- In schools and administrative buildings,
- In hotels,
- In shopping malls.
- In houses, used for levelling uneven, irregular substrate prior to laying ceramic tiles, marble, natural stone, carpet and vinyl.

#### **USES**

- Highly fluid and pump able for fast application.
- Rapid strength gain for fast installation of floor coverings
- Low installation cost
- Ready for foot traffic after 3-4 hours
- Return to service in 24 hours
- Self levelling

#### **TECHNICAL DATA**

Color:	Grey
Compressive Strength	
1 day	$> 8.0 \text{N/mm}^2$
7 days	$>18.0 \text{N/mm}^2$
28 days	$>20.0 \text{N/mm}^2$
Flexural Strength	
7 days	$>3.5 \text{N/mm}^2$
28 days	$> 5.0 \text{N/mm}^2$
Tensile Strength	
For 2mm (28 days)	$>3.5 \text{N/mm}^2$

For 30mm (28 days) >2.0N/mm<sup>2</sup>
Thickness 2-30 mm
Substrate Temperature 5-25°C
Working Time 70-100 minutes

Open to Foot Traffic 3 Hrs

The above figures are valid for 23 °C and intended as a guide only and should notbe used as a basis for specifications.

#### METHOD OF APPLICATION

#### **PREPARATION:**

The surface should be firm, free of dust, dry, clean and strong enough to support the weight. Any oil, grease, rust, gypsum, wax, paint residues, loose particles on the surface should be removed. The joints, cracks etc. should be repaired prior to the application. In large areas, application levels should be determined by gridding.

#### **PRIMING:**

In order to prolong the working time of Fast Flow Crete self levelling screed, to enhance the adherence to the floor and to minimize air bubbles:

- Fast Primer is applied with a brush or a roller. On very absorbent surfaces a second layer is applied.
- After the drying test, other operations can proceed.

#### **Mixing:**

A correct amount of water is poured into a clean mixing bucket using a measuring cup. Fast Flow Crete is added gradually and the mixture is mixed with a 400-600 rpm mixing equipment for 3 minutes until a homogenous, lump free mixture is achieved. The mixture is allowed to rest 3 minutes, and after mixing for 1 minutes the product is ready to use.



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**Note:** To achieve a seamless and smooth coating, an uninterrupted application should be made. Therefore, depending on the size of the application area, more than one mixing bucket should be used to provide an un interrupted application and the prepared mixture should be poured successively on the

surface for an effective coverage. For larger areas, the use of a mechanical mixer/pump unit is recommended

#### **Mixing Ratio**

Fast Flow Crete
Mixture Water
Mixed Density

Per 1 Kg Powder
Max. 0.22 Ltr
2.00 kg/Ltr

#### **Application**

The mixture should be spread on the surface with a trowel or an adjustable trowel at the required thickness. The mixture spreads evenly by self levelling.

Whether pouring from a mixing vessel or using a mechanical mixer with an application hose, the discharge point should be approximately 200mm from the floor to prevent splashing and air entrapment.

Progress should be steady and even. Application should take place continuously into the preceding wet material to ensure even thickness and flow. Do not make new edges and 'fill in' the middle. The fresh wet topping can be rolled immediately with a suitable long spiked roller to release all air retained within the underlayment. Do not roll material that has been applied for more than 2-3 minutes.

Maximum thickness should be 30mm. Fast Flow Crete shouldn't be applied at temperatures below +5°C and sudden fluctuations in the temperature should be prevented. The application shouldn't be carried out in areas with low humidity, higher ambient temperatures, and in areas which are exposed to sun and wind. Do not add water during the curing period.

#### Coverage

1.69 kg/m<sup>2</sup> powder per 1 mm thickness Watch Points

- If the ambient and surface temperatures are less than +5°C and more than +25°C, suitable temperatures should be waited for the application.
- Furthermore, the product shouldn't be applied at extremely hot, wet or windy weathers.
- The materials to be used at the appropriate temperatures should be brought and stored in the application area 1-2 days prior to the application and enabled to adjust the ambient conditions.
- In extremely cold conditions, heaters should be used to increase the ambient and surface temperature; and in order to increase the workability of the product, the packages should be preconditioned to +20°C-+25°C to become ready to use.
- The applications should be carried out by suitably qualified applicators.
- The working and reaction times of the cementitious systems are affected by the ambient and surface temperature and relative humidity in the air. Hydration slows in lower temperatures and this increases pot life and working time. Higher temperatures increase the hydration and the above mentioned times decreases accordingly. In order for the material to complete setting, the ambient and surface temperature should not drop below the allowed minimum temperature.
- The compound should be allowed to rest after mixing, and then mixed again prior to application.
- At least 3 days should pass for any other work (wooden parquet, vinyl etc.) after Fast Flow Crete application.

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- Fast drying should be prevented after the product is applied. The applied material should be avoided from the contact of water. Do not use water spray or liquid membrane curing compounds as these may affect the surface texture or prevent bonding of subsequent adhesives used with floor coverings.
- Joints should always be cut in toppings directly above those in the base slab to avoid random cracking.

Cleaning of Tools Tools and equipment should be cleaned with water after the application. Hardened Fast Flow Crete can only be removed from the surface mechanically.

**Storage** The product should be stored in its original package, in a cool and dry place protected from frost. Palettes should not be placed on top of each other during long term storage.

**Shelf Life** The shelf life is 6 months from the date of production under suitable storage conditions.

#### **Health and Safety Precautions**

It is dangerous to approach the application sites with fire. Fresh air should be circulated in the storage and the application sites. During the application, a protective apparel, protective gloves, goggles and masks which comply with the Occupational Health and Safety Rules.

should be used. Due to the irritation effect of the uncured materials, the mixture should not come into contact with skin and eyes; in case of a contact, the affected area should be washed with plenty of water and soap; in case of swallowing, a physician should be consulted immediately. No food or beverages should be brought to the application area. The product should be stored and kept out of reach of children. For detailed information please consult the Material Safety Data Sheet.

#### **WARRANTY**

This product is warranted to be free of defects in material and workmanship, and conform to FAST Construction Chemicals ("FAST") quality control All recommendations, statements and standards. technical data herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty or guaranty of any kind, expressed or implied including but not limited to, an implied warranty of merchantability or an implied warranty of fitness for a particular purpose. Satisfactory results depend upon many factors beyond FAST's control. User shall rely on his or her own information and tests to determine suitability of the product for the intended use and user assumes all risk, loss, damage, expense and liability resulting from his or her direct use, indirect use or consequential to their use of the product. FAST shall not be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use or inability to use the product. FAST's sole responsibility shall be to replace that portion of the product which proves to be defective. Any warranty claim must be made within six (6) months from the date of the claimed breach. This limited warranty applies only if the product was properly installed and used according to all instructions and was properly stored prior to use.

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