

# SUPER FG

## Product Codes

DH50, DH51 Packaging listed overleaf

## Description

Super FG is a pre-mixed magnesium phosphate cement blended with specially selected aggregates. The resulting mix produces a mortar which gives rapid setting and high early strength properties suitable for works carried out in raising or lowering carriageway frames and covers. Repairs can be carried out on concrete surfaces and with the speed of hardening; these may be brought into early use. The chemical mechanism will continue at temperatures down to 0°C thus enabling repairs to be carried out on floor areas in cold stores. Using suitable protection cold store area repairs may be carried out at temperatures down to -20°C.

The mixed mortar, when placed, will harden in approximately 10 minutes. The compressive strength gain will reach between 15N/mm<sup>2</sup> and 23N/mm<sup>2</sup> within <sup>3</sup>/<sub>4</sub> hour depending on the mix design used.

Super FG is a self contained product only needing to be mixed with water on site to produce a firm mortar. The addition of further water will produce a grout. Addition of aggregate to the grout will produce a workable concrete. The product is chloride free and can be safely used with cast iron and steel units. The mortar can be placed in sections of 8mm to 50mm in thickness and greater thicknesses can be built up in layers. After placement no special curing is required in moderate ambient conditions.

A coarser grade, Tecroc Super C is available.

- Uses include:**
- Re-bedding of raised manhole frames
  - Bedding of frames in new roads
  - Support of road furniture
  - Rapid repairs to concrete surfaces
  - Repairs to cold room areas

## Specification Outline

Bedding and levelling shall be carried out using Super FG as manufactured by Tecroc Products Ltd. The product must be stored, handled and placed strictly in accordance with the manufacturer's instructions.

## Quality Assurance

Tecroc Products Ltd is a firm of Assessed Capability. The Company's quality system conforms to BS EN ISO 9001:2000 and is assessed by SGS Ltd Systems and Services Certification.

## Standards

Super FG has been tested in accordance with appropriate parts of BS 1881 BS 6319.

## Typical Mortar Properties @ 20°C

### Compressive Strengths

**Mortar**, water content 1.5 litres per 25kg Super FG

<sup>3</sup> / <sub>4</sub> Hour	2 Hours	7Days	28 Days
15N/mm <sup>2</sup>	25N/mm <sup>2</sup>	48N/mm <sup>2</sup>	55N/mm <sup>2</sup>

**Grout**, water content 2.25 litres per 25kg Super FG

<sup>3</sup> / <sub>4</sub> Hour	2 Hours	7Days	28 Days
14N/mm <sup>2</sup>	24N/mm <sup>2</sup>	33N/mm <sup>2</sup>	37N/mm <sup>2</sup>

**Concrete**, water content 2.0 litres per 25kg Super FG

<sup>3</sup> / <sub>4</sub> Hour	2 Hours	7Days	28 Days
13N/mm <sup>2</sup>	23N/mm <sup>2</sup>	34N/mm <sup>2</sup>	37N/mm <sup>2</sup>

Density: 2200kg/m<sup>3</sup>  
 Shrinkage: Volume stable  
 Bond strength – slant shear: 40N/mm<sup>2</sup>  
 Mix designs given overleaf.



Grouts



Structural Support Mortars



Concrete Repair Products



Construction Adhesives



Resin Et Cementitious Anchors



Highway Products



Coatings



Waterproofing



Ground Engineering

**Head Office**  
 Holly Lane Industrial Estate  
 Atherstone  
 Warwickshire  
 CV9 2RN  
 Tel: 01827 711755  
 Fax: 01827 711330

**Irish Distributor**  
 Construction Chemical Supplies  
 Unit 219  
 JFK Road JFK Industrial Est  
 Dublin 12  
 Tel: 00 353 1 450 3896  
 Fax: 00 353 1 450 3298

Web site: [www.tecroc.co.uk](http://www.tecroc.co.uk)

E-mail: [enquiries@tecroc.co.uk](mailto:enquiries@tecroc.co.uk)

# SUPER FG

## Instructions For Use

### Preparation

Laitance and all loose material including dust, oil and grease should be removed in order to produce a sound substrate. The work area should be pre-wetted taking care to remove any standing water.

### Mix Designs

The water requirement for each 25kg bag of Super FG to attain the designed consistency is:-

Mortar consistency 1.50 to 1.75 litres  
Grout consistency 2.00 to 2.25 litres  
Concrete mix 1.75 to 2.00 litres

To use as concrete add 10kg of 10mm pea shingle (avoid limestone) to each 25kg bag of Super FG.

### Mixing

Excess mixing water should not be used. When mechanical mixing is used wet down the mixing vessel then drain all free water. Add the measured quantity of mixing water. Add the full bag of Super FG. Mix for at least one minute. Suitable mixers include a slow speed high torque drill and Mortar Stirrer.

For mixing at temperatures below 5°C, pre-warm the mixing vessel with warm water and use warm mixing water. Suitable water temperatures are approximately 25-30°C.

### Placing And Setting Frames

Place the mixed mortar as soon as mixing is complete. The chemical setting of Super FG is rapid and all mixed material should be placed within 10 minutes of adding the mixing water. Set frames by "the drop bed method" or by shimming with hard ceramic tiles to line and level followed by "mortar packing". The mortar should be fully compacted to obtain maximum strength. In both methods the mortar may be face finished using normal steel trowelling. Once the frame has been set, the outer area can be filled to the required thickness using Super FG as either a grout or concrete mix.

### Curing

No special curing is required at temperatures between 5°C and 35°C. For placing temperatures outside this range contact the Technical Service Department. The reinstatement of the road surfaces may be undertaken within one hour of placing. The road may be opened to vehicular traffic within two hours of placing.

## Precautions

### Health and Safety

Super FG is a slight irritant when mixed with water and should not come into contact with skin or eyes. Avoid inhalation of dust during mixing and wear safety glasses, dust mask and gloves. If skin contact occurs wash thoroughly with clean water. Should eye contact occur rinse immediately with plenty of clean water and seek medical advice.

Full health and safety details are given in Product Safety Data Sheet.

### Fire

Super FG is non-flammable

### Yield

Each 25kg bag or tub of Super FG will yield approximately 11.5 litres of mixed material at mortar consistency.

### Storage And Shelf Life

Super FG will have a shelf life of 6 months when kept in dry conditions at a temperature of 5°C to 45°C. Storage at higher temperatures and high humidity may reduce the shelf life.

### Packaging And Ordering

Super FG is supplied in 25kg valvesack bags and 25kg tubs

25kg valvesack bags Product Code DH50

25kg tubs Product Code DH51

For further information and sales please contact your local Tecroc Products Office as listed below.

Tecroc Products Ltd products are guaranteed against defective materials and manufacture. Products are sold subject to the Tecroc Products Ltd Terms and Conditions of Sale, copies of which are forwarded on invoice and are available on request. Tecroc Products Ltd endeavours to ensure that the above data and any further advice is correct, however, it cannot accept any direct or indirect liability for the use of its products as such usage is beyond its control.

**Head Office**  
Holly Lane Industrial Estate  
Atherstone  
Warwickshire  
CV9 2RN  
Tel: 01827 711755  
Fax: 01827 711330

**Irish Distributor**  
Construction Chemical Supplies  
Unit 219  
JFK Road JFK Industrial Est  
Dublin 12  
Tel: 00 353 1 450 3896  
Fax: 00 353 1 450 3298

Web site: [www.tecroc.co.uk](http://www.tecroc.co.uk)

E-mail: [enquiries@tecroc.co.uk](mailto:enquiries@tecroc.co.uk)



Grouts



Structural Support Mortars



Concrete Repair Products



Construction Adhesives



Resin Et Cementitious Anchors



Highway Products



Coatings



Waterproofing



Ground Engineering