

# MONOLEVEL FC

## Class R2 Fairing Coat

### USES

**MONOLEVEL FC** is an engineering quality fairing coat for filling minor blow holes and defects, and for repairing surface imperfections. Thin screed applications can be used to level both vertical and horizontal concrete surfaces to provide a fair faced finish.

### ADVANTAGES

- Incorporates the latest proven cement chemistry, microsilica, fibre and styrene acrylic copolymer technology.
- Pre-packaged material requiring mixing with clean water on-site to give an adhesive mortar which can be rapidly applied in vertical and horizontal situations by brush, bag-rubbing, trowel or spray techniques.
- High bond strength exceeds tensile strength of concrete, thus ensuring monolithic performance of the repair.
- Dense matrix provides excellent protection from ingress of acid gases, moisture and chlorides.
- Non-toxic when cured.
- Economic mortar requiring no substrate or inter-layer priming. Part bags can be mixed. Suitable for feather edging.
- Suitable as an exposed external finish without further protection or coating.
- Easily overcoated with specialist membranes to provide further protection and aesthetic quality.

### COMPLIANCE

CE marked in accordance with BS EN 1504 Part 3. Fully complies with the Highways Agency Standard BD 27/86 for the repair of Highway Structures.

### PRODUCT DESCRIPTION

**MONOLEVEL FC** is a single component, thixotropic, polymer modified, cementitious mortar with high adhesive properties, allowing it to be used as a thin screed, as well as a filler for filling minor voids and defects to provide a fair faced finish. It incorporates the most advanced microsilica, fibre and polymer technology, curing to provide enhanced freeze/thaw resistance and protection from the ingress of water, acid gases and chlorides. The product is supplied as a single component system requiring only the addition of clean water.



**Flexcrete Technologies Ltd**  
Tomlinson Road, Leyland PR25 2DY England  
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0086-CPD-530942

EN1504-3: Concrete repair product for structural repair  
PCC mortar (based on hydraulic cement polymer modified)

Compressive Strength:	Class R2 $\geq 15$ MPa
Adhesive Bond:	Class R2 $\geq 0.8$ MPa
Chloride Ion Content:	$\leq 0.05\%$
Thermal Capability Part 1:	Class R4 $\geq 2.0$ MPa
Capillary Absorption:	$0.047 \text{ kg.m}^{-2}.\text{h}^{-0.5}$
Dangerous Substances:	Complies with 5.4
Reaction to Fire:	Euroclass A2-s1, d0

### PACKAGING AND COVERAGE

Pack Size:	25kg
Yield:	15 litres per 25kg pack
Coverage:	A 25kg pack covers $5\text{m}^2$ at 3mm thickness

### TECHNICAL DATA

Mixed Colour:	Concrete Grey or White
Mixed Density:	$1900 \text{ kg/m}^3$
Application Thickness:	0-6mm per layer
Min Application Temperature:	$5^\circ\text{C}$
Max Application Temperature:	$35^\circ\text{C}$
Working Life (Approx):	30 minutes at $20^\circ\text{C}$

### MECHANICAL CHARACTERISTICS (TYPICAL)

Compressive Strength:	BS 4551 Tested at $20^\circ\text{C}$
1 day	20 MPa
7 days	39 MPa
28 days	51 MPa

## APPLICATION DATA

Application Guide available on request.

## PREPARATION

Mechanically remove all damaged concrete back to a sound core. The areas to be treated must be free from all unsound material, i.e. dust, oil, grease, corrosion by-products and organic growth. Smooth surfaces should be cleaned to remove release agents, curing compounds and surface laitance, preferably using wet grit or water blasting techniques or equivalent approved methods, and any steel cleaned to bright metal. The concrete sub-base should be a minimum of 20 MPa.

## PRIMING

The prepared substrate should be thoroughly soaked (preferably 24 hours before) with clean water until uniformly saturated without any standing water.

## MIXING

**MONOLEVEL FC** should be mechanically mixed using a forced action mixer or in a clean drum using a drill and paddle. A normal concrete mixer is NOT suitable. Use 3-4 litres of clean water per sack which gives a water : powder ratio of 12-16% depending upon the desired consistency for the chosen application technique. For part bags, this equates to approximately 5-6.5 volumes of powder to one volume of water. Normal mixing time depends on the type of mixer used but 2-3 minutes is average. Mix so as to entrain as little air as possible. Use without delay.

## PLACING

**MONOLEVEL FC** can be applied to localised minor voids and surface defects using a palette knife. For large areas of pore filling, work well into the prepared substrate using a brush, wooden float or "bag rubbing" techniques.

When used as a fair faced finish, **MONOLEVEL FC** should be applied to the prepared surface using a steel float to provide a smooth, polymer rich surface finish. An initial thin layer should be worked well into the surface, to fill blow holes and minor defects, prior to building up the thickness to a maximum of 6mm. Alternatively spray techniques can be employed.

Once the last layer has stabilised, trowel marks can be removed using a wooden float or damp sponge to produce a surface comparable to emery paper which provides an excellent finish for the subsequent application of a surface coating.

## CURING

Particular attention should be paid to adequate curing with thin screed applications of **MONOLEVEL FC**. It is important that the surface of the mortar is protected from strong sunlight and drying winds with **FLEXCRETE CURING MEMBRANE WB**, polythene sheeting, damp hessian or similar.

## CLEANING

All tools should be cleaned with water immediately after use.

## SHELF LIFE

12 months in dry, frost free conditions with unopened bags at 20°C.

## SAFETY DATA

Safety Data Sheet available on request.



Flexcrete Technologies Limited

Tomlinson Road

Leyland

Lancashire

PR25 2DY

United Kingdom

Tel: +44 (0) 845 260 7005

Fax: +44 (0) 845 260 7006

Email: [info@flexcrete.com](mailto:info@flexcrete.com)

Web: [www.flexcrete.com](http://www.flexcrete.com)



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