

# DUROFIX



**Fiber-reinforced, polymer modified repair mortar, for thicknesses of up to 6cm/coat**



## ■ PROPERTIES

Fiber reinforced repair cement mortar, of high strength. Its composition contains special polymers, hydraulic binders, selected aggregates, and synthetic fibers. Suitable for highly demanding repairs of concrete elements.

Classified as concrete repair product, in PCC R3 category, per EN 1504-3.

## ■ ADVANTAGES

- Powerful adhesion to the substrate.
- Great workability.
- Does not shrink or crack
- Does not sag in thickness up to 6cm, even on vertical surfaces.
- Durable against moisture, frost, impact, and abrasion.
- High mechanical strength.

## ■ APPLICATIONS

DUROFIX repairs all construction/manufacturing defects for thicknesses of up to 6cm per coat, without the requirement of any formwork. It is also

suitable for all concrete repair works, for restoring broken step edges and balconies as well as columns. Ideal for constructing coving mortars for roofs, where horizontal and vertical surfaces meet.

## ■ USE

### 1. Surface preparation

The substrate must be free of loose materials, dust and oils. Before the application, thoroughly soak the substrate or prime using the micromolar stabilizer, AQUAFIX of DUROSTICK.

### 2. Application

Empty DUROFIX into a clean container with cool water, at a ratio of 25kg mortar to 4.5lt of water. Mix with a low-rpm electric mixer or a cement mixer, until a lump free, homogeneous mixture is created that is suitable for every application.

The mixture remains workable for three hours. Apply the mortar by either pressing it with a gauging trowel when performing repairs, or by using an injection machine, when surfaces require a coating product with high mechanical strengths.

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### ■ NOTES

- When the steel reinforcement (rebar) is corroded, remove all the rust with DUROSTICK RUST REMOVER and apply DUROSTICK RUST FREE POWDER, the cementitious corrosion inhibitor for rebar protection.
- Adding DUROSTICK D-20 in the mixing water at a ratio of 1: 3 or DUROMAX at a ratio of 1: 6, increases its flexibility and watertightness, but also slightly changes its setting time .
- Do not add any water if the mixture has started to cure.
- Protect the final surface with wet burlap or occasional soaking for the next 24 hours (especially in the summer months).

### ■ CLEANING

Clean all tools with water, immediately after use. The cured product can only be removed by mechanical means .

### ■ CONSUMPTION

Approximately 18kg/m<sup>2</sup>/cm thick coat.

### ■ STORAGE

Store in the factory sealed packages, in dry and shaded places, for 12 months from production date.

### ■ SAFETY DIRECTIONS

The product contains Portland cement. Before use, refer to the cautions on the product packaging or the Safety Data Sheet.

### ■ PACKAGING

Paper bag of 25kg on 1.500kg pallet

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### TECHNICAL SPECIFICATIONS

(Measurement conditions 20°C and 50% R.H.)

■ Form - Color	Cement mortar - Gray
■ Bulk density of dry mortar	1.47±0.05kg/l
■ Bulk density of fresh mortar	2.00±0.05kg/l
■ Maximum grain size	5mm
■ Water requirement	4.5lt water for 25kg mortar
■ Application temperature	From +5°C to +35°C
■ Temperature resistance	From -30°C to +80°C
■ Pot life	3 hours
■ Maximum application thickness	6 cm
■ Minimum application thickness in one coat	3mm
■ Chloride ion content, per EN 1015-17:	≤ 0.05%

### PRODUCT PERFORMANCES

■ Flexural strength, per EN 12190, after:

• 28 days  $\geq 5.50 \text{ N/mm}^2$

■ Compressive strength, per EN 12190, after:

• 48 hours  $\geq 16.00 \text{ N/mm}^2$

• 7 days  $\geq 24.00 \text{ N/mm}^2$

• 28 days  $\geq 40.00 \text{ N/mm}^2$

■ Adhesion to concrete, per EN 1542  $\geq 1.90 \text{ N/mm}^2$

■ Elastic modulus, per EN 13412  $\geq 15 \text{ GPa}$

■ Resistance to carbonation Yes

■ Thermal compatibility expressed as adhesion to concrete, per EN 13687, after:

• 50 freeze-thaw cycles

$\geq 1.70 \text{ N/mm}^2$

• storm cycles

• 30 dry heat cycles

■ Capillary water absorption w, per EN 13057  $w < 0.45 \text{ kg/m}^2 \cdot \text{h}^{0.5}$

■ Reaction to fire, per EN 13501-1 Class A1

Where 1 N/mm<sup>2</sup>=1MPa

The technical specifications and directions of use contained in this technical data sheet are the results of the knowledge and experience of the company's research and development department, as well as from the real-life applications of the product. The recommendations and suggestions regarding the use of the products are made without guarantee since the respective conditions during their application are beyond the control of the company. For this reason, it is the user's responsibility to make sure that the product is suitable for the intended application as well as the application conditions of the project.