

# BENFERCURE

Rev. 01

## FIBRE-REINFORCED THIXOTROPIC CEMENT MORTAR FOR THE RESTORATION OF DETERIORATED CONCRETE

### TECHNICAL FEATURES:

BENFERCURE is a cementitious powder mortar consisting of high-strength cements, graded particle size aggregates, synthetic resins, fibres and special additives. Its formulation has been conceived and developed to repair horizontal and vertical surfaces of deteriorated concrete structures.

The excellent workability and the high thixotropy also allow for the vertical application of up to 3 cm of thickness per coat.

Once hardened, due to its great adhesion to substrates, elasticity and water tightness, it grants a longer life to surfaces subject to heavy traffic abrasion.

### FIELDS OF APPLICATION:

Repair of concrete columns.

Repair of the lower surface of concrete balconies.

Repair and finishing of concrete walls where they have a defect, such as gravel nests or holes due to spacers.

Repairs of concrete deteriorated by time and by oxidation of reinforcement bars.

Repairs of concrete ramps and industrial floors.

Smoothing of cementitious screeds before the implementation of ceramic floors.

### METHODS OF USE AND CONTRAINDICATIONS:

Do not use BENFERCURE on smooth concrete surfaces.

Before the application, remove rust from uncovered reinforcement bars by brushing or blast cleaning.

Do not add water after the mix has started to set.

Only work at temperatures between + 5°C and + 30°C.

The substrates must be free from oil, grease and dust. Damaged, weakened and partially taken-off parts must be absolutely removed, preferably by blast cleaning, until obtaining a rough and solid substrate.

Treat previously blast-cleaned bars with BENFERCURE FERRI before proceeding to repair with BENFERCURE.

To help with product adhesion, abundantly wet the substrate and avoid spreading mortar directly on stagnant water.

### PREPARATION OF THE MIXTURE:

Mix BENFERCURE with 18% clean water (4.5 L per sack) using a concrete mixer or a low-speed mechanical agitator; be careful to add powder to water and not vice-versa in order to obtain a mix free of clots.

The mortar is now ready for use, and remains workable for approximately 1 hour at 20°.

### APPLICATION OF THE MORTAR:

BENFERCURE can be applied with a flat or a gauging trowel even on vertical surfaces in maximum thickness of 3 cm per coat.

Where needed, it is possible to spread a second coat of BENFERCURE as soon as the first coat becomes solid enough. Do not let more than four to five hours pass.

At high temperatures, protect BENFERCURE from a too-rapid drying by dampening it with water. Surface finishing can be made with BENFERFINISH.

**COVERAGE:**

Coverage of BENFERCURE is 18 kg/m<sup>2</sup> per cm of thickness.

**CLEANING:**

Tools can be cleaned with water before hardening of the mortar.

**PACKAGING:**

BENFERCURE is packed in 25 kg poly-lined bags, is supplied on pallets of 1,500 kg.

**STORAGE:**

In the original unopened packaging in a dry and cool place.

**SHELF LIFE:**

9 months from the date printed on the packaging; pursuant to EU directive 2003/53/CE, we inform that the expiry date refers to the efficacy of the reducing agent in relation to Chromium VI salts.

## PRODUCT TECHNICAL DATA

CONSISTENCY:	PASTE
COLOUR:	GREY
STORAGE:	IN THE ORIGINAL UNOPENED PACKAGING IN A DRY AND COOL PLACE.
SHELF LIFE:	9 MONTHS FROM THE DATE PRINTED ON THE PACKAGING; PURSUANT TO EU DIRECTIVE 2003/53/CE, WE INFORM THAT THE EXPIRY DATE REFERS TO THE EFFICACY OF THE REDUCING AGENT IN RELATION TO CHROMIUM VI SALTS.
TOXICITY:	NONE POSSIBLE IRRITATION OF SKIN AND EYES AFTER CONTACT, DUE TO THE CEMENT CONTENT USE SUITABLE PROTECTION
INFLAMMABILITY:	NONE
MIX RATIO:	18 PARTS WATER WITH 100 PARTS POWDER BY WEIGHT
APPLICATION TEMPERATURE:	+ 5° C TO + 30° C
SPECIFIC GRAVITY OF THE MIX:	2.1 KG / LITRE
POT LIFE:	45 MINUTES AT 23°
WAITING TIME BETWEEN ONE COAT AND ANOTHER:	MAXIMUM 4-5 HOURS
MAXIMUM APPLICATION THICKNESS:	3 CM PER COAT
SETTING TIME AT 23°:	< 2 HOURS

### FINAL PERFORMACES

	VALUE
COMPRESSIVE STRENGTH	
AFTER 3 DAYS:	> 25 MPa
AFTER 7 DAYS:	> 30 MPa
AFTER 28 DAYS:	> 40 MPa
FLEXURAL STRENGTH	
AFTER 3 DAYS:	> 6 MPa
AFTER 7 DAYS:	> 7 MPa
AFTER 28 DAYS:	> 9 Mpa

NB: The information given in this chart is based on our best experience and indicative only.

It must in any event be verified by the end user, who assumes  
all liabilities deriving from utilization of the product.