

# RESISTO LEVEL

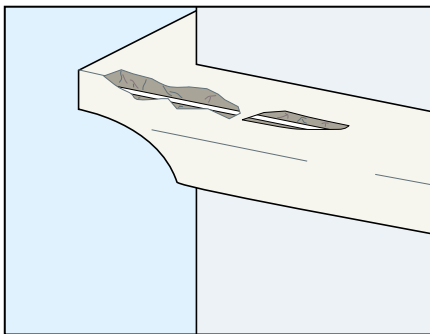
HIGHLY WORKABLE MEDIUM-QUICK SETTING AND HARDENING FIBRE-REINFORCED THIXOTROPIC MORTAR WITH LOW ELASTIC MODULUS WITH IMPROVED ADHESION AND COMPENSATED SHRINKAGE FOR THICK NON-STRUCTURAL REFURBISHMENTS OF CONCRETE WITHOUT FORMWORK AND SMOOTHING OPERATIONS

GRANTS *LEED* CREDITS

CHARACTERISTICS	ENVIRONMENTAL	METHOD OF USE				PRECAUTIONS	
	ECO GREEN	RECYCLABLE	MIX MECHANICALLY	APPLY BY TROWEL	APPLY BY FLOAT TROWEL	APPLY MECHANICALLY USING A SPRAY PUMP	STORAGE: IN A DRY PLACE

## PROBLEM

### NON-STRUCTURAL CONCRETE REFURBISHMENT



Repairs to corners of beams or pillars, front cornices and generally speaking all structures in stressed concrete require the use of highly thixotropic mortar with low elastic modulus to avoid the formation of cracks or shrinkage hairlines.

## SOLUTION

**RESISTO PLASTER** is a premixed powder, ready for use, containing highly resistant cement, selected aggregates, synthetic fibres and additives which ensure excellent workability and adhesion to the substrate. When mixed with water, it forms a thixotropic mortar that is easy to work, to such an extent that it can be applied on vertical surfaces, even very thick and without having to use formwork.



## APPLICATION FIELDS

**RESISTO LEVEL** is particularly suitable for repairs, grouting, reconstruction of the layer over the reinforcement, skimming, repair of corners of beams and pillars and of the front cornices of balconies damaged by the oxidation of the reinforcement rods. Generally speaking, for all work that requires mortar with low elastic modulus for structures in stressed concrete.

## ADVANTAGES

- Easy to use.
- High adhesion to concrete surfaces.
- Highly thixotropic - does not drip.
- Shrink-resistance and reinforced fibres eliminate the possible formation of cracks even when thickly applied.
- Low elastic modulus for use in stressed concrete structures.
- Single product for 2 purposes: shorter application time and cost savings.

## METHOD OF USE

### • PREPARING THE SUBSTRATE

Concrete substrates should be cleaned to ensure excellent adhesion of the **RESISTO LEVEL** mortar.

It is therefore necessary to remove all loose particles and material which lacks solidity by chiselling, brushing or high pressure water cleansing. Remove any traces of oil, release agents, rust and dirt in general.

Any exposed bars should be cleaned and passivated with STRATO FER or cement grout and STRATO 4900 (1).

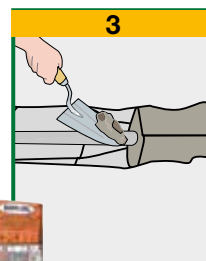
Dampen the substrate without creating films of water; any which form can be eliminated using compressed air or a sponge. Apply one coat of gripping agent with a stiff-bristled brush, using the same **RESISTO LEVEL**, making sure to fill all the cavities in the concrete. Apply the filling mortar,



fresh-on-fresh, using a trowel. When applying on particularly difficult, very smooth and stressed surfaces, such as the front cornices of balconies, you are recommended to add **COLLASEAL** to the mix.

### • PREPARING THE MIX

**RESISTO LEVEL** should be mixed with clean water (5.0 litres per 25 kg bag) (2). To mix the product use a normal cement mixer or a slow speed mixer drill, adding **RESISTO LEVEL** to previously poured water and mixing for 3-4 minutes. Do not mix for longer than it takes to obtain a perfectly smooth mix. Remember that water is an important component of the mor-



tar and is to be added in the recommended quantities so as not to degrade some of the product's properties, such as its mechanical strength, low shrinkage etc.

### • APPLICATION

Subsequently, apply **RESISTO LEVEL** within 30 minutes from mixing, in a maximum thickness of 3 cm per coat, until you reach the required thickness (3). **RESISTO LEVEL** mortar can be applied manually or with mechanical plastering equipment.

### • FINISHING

Reinstated structures can be painted 4 hours after the execution of the repairs themselves, using acrylic water-based paints; leave to cure longer when using solvent-based paints.

### • CONSUMPTION

About 18 kg/m<sup>2</sup> per cm of thickness.

(See following)

## TECHNICAL CHARACTERISTICS

	Standard	RESISTO LEVEL
Appearance		Powder
Colour		Grey
Particle size		0 to 0.7 mm
Apparent density		1.40 ± 0.10 kg/ℓ
Mix water		20% ± 1%
Storage in original packaging in a dry place		12 months
<b>Mix properties and workability</b>	<b>Standard</b>	
Density of mix	<b>EN 1015-6</b>	1.80 ± 0.10 kg/ℓ
pH of mix		about 12
Workable mix duration (*)		about 30 minutes
Application temperature		+5°C to +35°C
Minimum application thickness		1 mm
Maximum application thickness		30 mm
Application		Manual or mechanical
<b>Performance characteristics</b>	<b>Standard</b>	<b>Product performance</b>
<b>Class and type</b>	<b>EN 1504-3</b>	<b>R2 - PCC</b>
<b>Compression strength - after 28 days</b>	<b>EN 12190</b>	≥15 MPa
<b>Bending strength - after 28 days</b>	<b>EN 196-1</b>	≥5 N/mm <sup>2</sup>
<b>Chloride ion content</b>	<b>EN 1015-17</b>	Absent
<b>Bond strength</b>	<b>EN 1542</b>	≥0.8 MPa
<b>Thermal compatibility with frost-thaw cycles - Part 1</b>	<b>EN 13687-1</b>	≥0.8 MPa
<b>Absorption of water by capillarity</b>	<b>EN 13057</b>	w ≤ 0.5 kg/m <sup>2</sup> ·h <sup>0.5</sup> - W1
Thermal resistance - Operating temperature		-30°C to +90°C
<b>Fire reaction</b>	<b>EN 13501-1</b>	A1
<b>Hazardous substances</b>	<b>EN 1504-3</b>	In accordance with note in ZA.1

Test conditions: temperature 23±2°C, 50±5% R.H. and air velocity in test area <0.2 m/s. The data shown may vary depending on the specific work site conditions: temperature, humidity, ventilation, absorbency of the base coat.

(\*) The times indicated will be longer or shorter as the temperature drops or rises.

Compliant with the general principles defined in EN 1504-3 - Principles for evaluating the use of products and systems.

(See previous)

### • PRECAUTIONS

- Use cold water in summer and water at 20°C in winter.
- Application temperature from +5°C to +35°C.
- Do not add water once the mix has started to set.
- Do not add any other materials such as cement, aggregates and additives.
- In hot weather, keep dampening the finished mortar surface for at least 24 hours to stop it from drying out too quickly.
- In hot weather (if temperature is over 30°C) open time is reduced to 20-30 minutes.
- Do not apply on smooth surfaces.
- Thick applications must be limited to small repairs. In case of wide surfaces use either RESISTO TIXO or RESISTO REP.
- Straight after application, clean tools with water and the coated surfaces with a damp cloth.

- Do not expose the material to the sun in hot weather.
- Store in original closed packaging in a dry place.

## PACKAGING

**RESISTO LEVEL**

25-kg Sack

• FOR ANY FURTHER INFORMATION OR ADVICE ON PARTICULAR APPLICATIONS, CONTACT OUR TECHNICAL OFFICE • IN ORDER TO CORRECTLY USE OUR PRODUCTS, REFER TO INDEX TECHNICAL SPECIFICATIONS •

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