

RESISTO PLASTER

HIGHLY WORKABLE FIBRE-REINFORCED THIXOTROPIC MORTAR WITH LOW ELASTIC MODULUS WITH IMPROVED ADHESION AND COMPENSATED SHRINKAGE FOR THICK NON-STRUCTURAL REFURBISHMENTS OF CONCRETE WITHOUT FORMWORKS

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

FOR THICK STRUCTURAL CONCRETE REPAIRS



Some concrete repair work requires the application of considerable thicknesses without using formwork. Repairs to corners of beams or pillars, front cornices and wall-floor joining mouldings, requires the use of highly thixotropic mortar, with compensated shrinkage in order to avoid cracks and shrinkage hairlines.

SOLUTION

RESISTO PLASTER is a premixed powder, READY FOR USE, containing high-strength 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 even very thick on vertical surfaces, and without having to use formwork.

APPLICATION FIELDS

RESISTO PLASTER is particularly suitable for repairs, grouting, reconstruction of the layer over the reinforcement, plastering with good anti-carbonation characteristics, corner repairs to beams and pillars and the front cornices of balconies damaged by the oxidation of the reinforcement rods. Generally speaking, for all work that requires consistent thicknesses without using formwork and mortar with low elastic modulus for structures in stressed concrete.

ADVANTAGES

- Ease of use.
- Good adhesion to concrete surfaces.
- Highly thixotropic - does not drip.
- Shrink-resistance and reinforcing fibres eliminate the possible formation of cracks even when thickly applied.



METHOD OF USE

• PREPARING THE SUBSTRATE

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

It is therefore necessary to remove all loose particles and material lacking in 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 a coat of gripping agent with a stiff-bristled brush, using the same **RESISTO PLASTER**, 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 PLASTER is prepared by mixing

the product with right quantity clean water (see table) (2). To mix the product use a normal cement mixer or a slow speed mixer drill, adding **RESISTO PLASTER** 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 mortar 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.

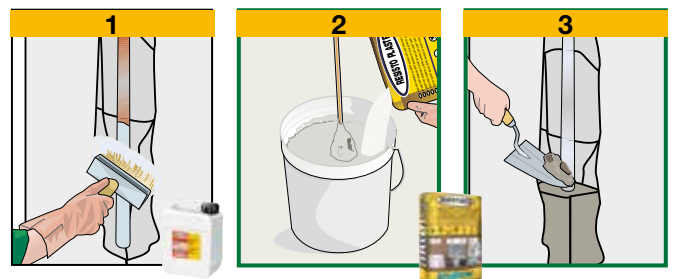
• APPLICATION

For applications as a plaster on large surfaces, we recommend applying a render coat of **RESISTO PLASTER** with COLLASEAL at a semi-fluid consistency in order to improve anchorage (3). Subsequently, apply **RESISTO PLASTER** within 40 minutes from mixing, in a max-

imum thickness of 4 cm per coat, until you reach the required total thickness (4).

For very thick structural plastering applications, you are recommended to sink an alkali-resistant fibreglass mesh in the final layer of mortar (mesh size 1 cm). **RESISTO PLASTER** mortar can be applied manually or with mechanical plastering equipment. As a rough rule, the mortar can be float-finished when it no longer sticks to the hand.

(See following)



TECHNICAL CHARACTERISTICS

	Standard	RESISTO PLASTER
Appearance		Powder
Colour		Grey
Particle size		0 to 1.4 mm
Apparent density	EN 1015-6	1.40 ± 0.10 k/L
Mix water		18% ± 1%
Storage in original packaging in a dry place		12 months
Mix properties and workability		
Density of mix		1.85 ± 0.10 kg/L
pH mix		about 12
Workable mix duration (*)		about 60 minutes
Application temperature		+5°C to +35°C
Minimum application thickness		5 mm
Maximum application thickness		40 mm
Application		Manual or mechanical
Performance characteristics		
Class and type	Standard	Product performance
Class and type	EN 1504-3	R2 - PCC
Compression strength - after 28 days	EN 12190	≥15 MPa
Bending strength - after 28 days	EN 196-1	≥5 N/mm ²
Chloride ions content	EN 1015-17	Absent
Bond strength	EN 1542	≥0.8 MPa
Thermal compatibility with frost-thaw cycles - Part 1	EN 13687-1	≥0.8 MPa
Absorption of water by capillarity	EN 13057	w ≤ 0.5 kg/m ² ·h ^{0.5} - W1
Thermal resistance - Operating temperature		-30°C to +90°C
Fire reaction	EN 13501-1	A1
Hazardous substances	EN 1504-3	In accordance with note in ZA.1

Test conditions: temperature 23±2°C, R.H. 50±5% and air speed 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 1504-9** - Principles for evaluating the use of products and systems.

(See previous)

• FINISHING

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

• CONSUMPTION

About 18 kg/m² per cm of thickness.

• 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 damping 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.
- 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

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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The figures shown are average indicative figures relevant to current production and may be changed or updated by INDEX at any time without previous warning. The advice and technical information provided, is what results from our best knowledge regarding the properties and the use of the product. Considering