

# RESISTO TIXO

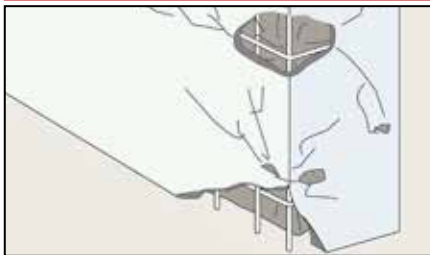
FIBRE-REINFORCED THIXOTROPIC MORTAR WITH IMPROVED ADHESION AND COMPENSATED SHRINKAGE FOR THICK STRUCTURAL REFURBISHMENTS OF CONCRETE WITHOUT FORMWORK

GRANTS *LEED* CREDITS

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

## PROBLEM

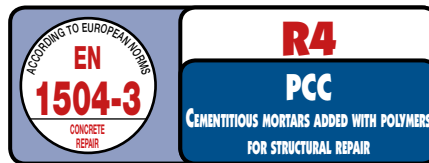
**REPAIRING DETERIORATED CONCRETE PARTS WITHOUT HAVING TO USE FORMWORK**



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

## SOLUTION

**RESISTO REP** 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 on vertical surfaces, even very thick and without having to use formwork.



## APPLICATION FIELDS

**RESISTO TIXO** is particularly suitable for repairs, filling, reconstruction of reinforced concrete or plaster with good anti-carbonation properties, repairing the corners of beams, pillars and balcony risers damaged by the oxidation of the reinforcing rods, and formation of joint mouldings.

Generally for all jobs where considerable thicknesses must be applied without using formwork.

## ADVANTAGES

- Easy to 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 the **RESISTO TIXO** mortar.

It is therefore necessary to remove all loose particles and material which is 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 one coat of gripping agent with a stiff-bristled brush, using the same **RESISTO PLASTER**, making sure to fill all the cavities in the concrete.

### • PREPARING THE MIX

**RESISTO TIXO** should be mixed with clean water (4.25 litres per 25 kg bag) **(2)**.

To mix the product use a normal cement mixer or a slow speed mixer drill, adding **RESISTO TIXO** 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.

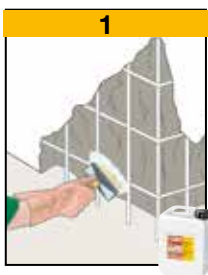
### • APPLICATION

Apply the filling mortar, fresh-on-fresh, using a trowel. When applying the product on particularly difficult stressed substrates, we recommend adding **STRATO 4900** or **COLLASEAL** to the mix.

For applications as structural plaster on large surfaces, we recommend applying a render coat of **RESISTO TIXO** with **COLLASEAL** at a semi-fluid consistency in order to improve anchorage **(3)**. Subsequently, apply **RESISTO TIXO** within 30 minutes of mixing, in a maximum thickness of 3 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).

(See following)



## TECHNICAL CHARACTERISTICS

	Standard	RESISTO TIXO
Appearance		Powder
Colour		Grey
Particle size		0 to 2.5 mm
Apparent density		1.35 ± 0.10 kg/ℓ
Mix water		16% ± 1%
Storage in original packaging in a dry place		12 months
<b>Mix properties and workability</b>		
Density of mix	<b>EN 1015-6</b>	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		35 mm
Application		Manual or mechanical
<b>Performance characteristics</b>		
<b>Class and type</b>	<b>EN 1504-3</b>	<b>R4 - PCC</b>
<b>Compression strength - after 28 days</b>	<b>EN 12190</b>	≥45 MPa
<b>Bending strength - after 28 days</b>	<b>EN 196-1</b>	≥9 N/mm <sup>2</sup>
<b>Chloride ions content</b>	<b>EN 1015-17</b>	Absent
<b>Bond strength</b>	<b>EN 1542</b>	≥2.0 MPa
<b>Thermal compatibility frost-thaw cycles - Part 1</b>	<b>EN 13687-1</b>	≥2.0 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
<b>Durability - Resistance to carbonation</b>	<b>EN 13295</b>	Test passed
<b>Elastic compression modulus</b>		≥20 GPa
<b>Thermal resistance - Operating temperature</b>		-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 to ZA.1 note

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)

As a rough rule, the mortar can be float-finished when it no longer sticks to the hand. The mortar can be applied by hand or with mechanical plaster sprayers.

#### • FINISHING

Painting of the repaired structure may be carried out 8 days after carrying out repairs using water-based acrylic products, but solvent-based paint will need longer curing times.

#### • CONSUMPTION

About 18 kg/m<sup>2</sup> 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 the 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 TIXO**  
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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