



## Thixotropic quick-setting repair mortar

Fibre-reinforced thixotropic mortar, with quick-setting and controlled shrinkage for restoring structural concrete, formulated with selected aggregates, synthetic microfibers and additives such as to give it an excellent workability and high mechanical characteristics.



## Technical characteristics

DIAMANT TIXO RAPID is classified according to european standard EN 1504-3 as PCC (repair cement-based hydraulic polymer-modified mortar) class R4.

<b>Appearance</b>	Grey powder	
<b>Particle size</b>	≤ 3 mm	
<b>Mixing time</b>	≈ 30 minutes	
<b>Compressive strength</b>	<b>after 3 h</b>	≥ 8 N/mm <sup>2</sup>
	<b>after 24 h</b>	≥ 15 N/mm <sup>2</sup>
	<b>after 28 days:</b>	≥ 45 N/mm <sup>2</sup> (R4)
<b>Flexural strength at 28 days</b>	≥ 8 N/mm <sup>2</sup>	
<b>Elastic modulus</b>	≥ 20000 N/mm <sup>2</sup>	
<b>Adhesion to CONCRETE</b>	≥ 2,0 N/mm <sup>2</sup>	
<b>Capillary absorption</b>	≤ 0,5 kg·m <sup>-2</sup> ·h <sup>-0,5</sup>	
<b>Reaction to fire</b>	Class A1	
<b>Power consumption</b>	≈ 19 kg/m <sup>2</sup> per cm of thickness	
<b>Paste water</b>	≈ 17% (≈ 4.5 l per bag 25 kg)	
Data are expressed at 22±1°C with relative humidity at 50±5%. Lower temperatures extend the maturation time and curing; higher temperatures reduce the time of maturation and hardening.		

Conforming to Reg. 1907/2006 (Reach). XVII point 47

## Use

DIAMANT TIXO RAPID is suitable for the reconstruction of elements in deteriorated concrete due to oxidation of the reinforcement rods, such as: beams, pillars, fronts of balconies, precast elements, etc.

DIAMANT TIXO RAPID is also used for the covering of pipelines and hydraulic works, to regularize the walls of the tunnels, to eliminate surface defects such as gravel nests, separated casting, etc., or to fill rigid joints.

## Shelf life

In order to maintain the characteristics of the product, keep the bags in covered dry place and on wood pallets. The effectiveness of the performance characteristics in the intact packaging 6 months.

## Application

Preparation of the supports:

- remove the deteriorated parts and those detaching from the concrete to reach the compact and rough substrate;
- clean the concrete by removing dust, rust, oil, grease, efflorescence, paint, etc.;
- clean the iron armour up to bring them to the state of white metal;
- moisten the substrate, and wait for the evaporation of the excess water before applying the thixotropic mortar.

Apply by brush a first coat of passivating mortar DIAMANT FER on the metal reinforcement in sight, and a second coat on the concrete to restore. Before the DIAMANT FER is hardened (about 2 hours), apply DIAMANT TIXO.

Preparation of the paste - hand or mixer:

- in a case put some clean water in order to knead the amount of dust expected; add dust continuously;
- mix until you get the desired consistency;
- do not exceed the 4 minutes of mixing. Use each time the quantity of product that you intend to apply within 30 minutes after mixing.

Avoid mixing with a cement mixer.

DIAMANT TIXO RAPID may be mixed with a drill fitted with whip or by hand.

DIAMANT TIXO RAPID is applied with spatula or trowel, pressing the product on the support in order to encourage adhesion, in one or more coats spaced about 60 minutes from each other. Finish immediately with the spatula once the product is applied.

After about 12 hours, apply anti-carbonatation coating, such as: DIAMANT RASA, RASACEM TOP, RISANA AQUABLOC.

---

## Warnings

Use the product at temperatures between +5°C and +35°C.

Avoid applying the product in the presence of strong wind or in full sun.

Protect the product from frost, rain in the 24 hours following the application.

In the realization of the mixture, use clean water.

Minimum thickness per layer is 1 cm.

Maximum thickness per layer is 4 cm. For higher thicknesses, use iron of the contrast (making a concrete cover of at least 2 cm) or proceed to the application of further layers.

Do not add foreign materials to the mixture of DIAMANT TIXO RAPID.

---

## Item specifications

Supply and laying of fibre-reinforced thixotropic mortar with quick-setting and controlled shrinkage DIAMANT TIXO RAPID for the repair of structural concrete, made with selected aggregates, synthetic microfibers and specific additives, with the CE marking according to EN 1504-3 (class R4).

The product must exert a resistance to compression after 28 days greater than 45 N/mm<sup>2</sup> and a bending strength after 28 days greater than 8 N/mm<sup>2</sup>.

The product must be applied using a trowel or spatula for thicknesses up to 4 cm in a single coat.

"The technical data in this document are indicative and related to the average values of production. SICILGESSO reserves the right to make, at any time, any changes and variations as it deems appropriate. Always refer to the latest updated version of the technical data sheet, available on the website [www.sicilgesso.it](http://www.sicilgesso.it)