

## THIXOCRETE R4

### THIXOTROPIC MORTAR FOR STRUCTURAL CONCRETE REPAIRS

*High resistance thixotropic cementitious mortar, ideal for structural repairs.*

**Description :** Single component, cementitious, high strength , shrinkage compensated, fibre reinforced, thixotropic mortar. Suitable for concrete repairs with layer thicknesses 10-40 mm

**Usages:** It is suitable for:

- repairs of damaged structural concrete elements (beams, columns)
- repair of concrete cavities, due to poor casting and weak vibration
- repairs of concrete precast elements



**Advantages:**

- High strength (class R4)
- It contains pure quartz aggregates
- Shrinkage compensating
- Impermeable
- Formulation rich in cement, which allows easy placing and finishing
- Sprayable

**Packaging** Bags 25 kg. Pallet 1500 kg (60 bags)  
**/distribution :** Plastic bags 5 kg. Pallet 960 kg (48 cartons of 20 kg)

**Storage:** 12 months from the date of production in unopened package, in a dry place.

**Fire behaviour:** Not flammable


**Safety precautions :** This product contains cement and reacts as alkaline with moisture, so it is classified as irritant. It must be used with care according to the instructions for use. In order to avoid any injuries due to alkalis of the cement, wear gloves, protective glasses and avoid breathing the dust. Please consult the SDS of the product.

**Specifications:** EN 1504-3 (R4)

**Certification** Factory production control certification:  
**/CE marking:** TÜV AUSTRIA HELLAS (0906) - 0906-CPR-02413045

**TECHNICAL DATA:**

Compressive strength:	> 45 MPa (Class R4)
Chloride content:	≤0.05%
Adhesive bond:	≥2 MPa
Restrained shrinkage /expansion:	≥2 MPa
Carbonation resistance:	Passes
Elastic modulus:	≥ 20 GPa
Capillary absorption:	≤0.5 kg/m <sup>2</sup> h <sup>0,5</sup>
Reaction to fire:	Euroclass A1

 14 DoP: 208 MAR-CPR 0906
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EN 1504-3  THIXOCRETE R4 Repair mortar (CC mortar) for structural concrete repairs
Compressive strength: <i>class R4</i> Chloride ion content: <i>≤ 0.05%</i> Adhesive bond: <i>≥ 2 MPa</i> Restrained shrinkage/expansion : <i>≥ 2 MPa</i> Elastic modulus: <i>≥ 20 GPa</i> Carbonation resistance: <i>pass</i> Capillary absorption: <i>≤ 0.5 kg m<sup>-2</sup> h<sup>-0.5</sup></i> Dangerous substances: <i>comply with §5.4</i> Reaction to fire: <i>class A1</i>

**APPLICATION:**

**Mixing ratio:** 3.5 – 4.2 lt of water per bag of 25 kg

**Consumption:** Approx. 20 kg of powder, per m<sup>2</sup>, per 10 mm layer thickness

**Application mode:**

- The concrete substrate must be completely clean and structurally sound.
- The cavity of the surface to be repaired should be at least 10 mm thick.
- The edges where concrete is removed, should be cut at an angle of 90° and to a thickness of at least 10mm
- Remove deteriorated concrete or mortar by hand or mechanical methods (chisel or high pressure water blasting) ensuring also the appropriate surface roughness.
- Reinforcement should be cleaned from rust and any other loose and deleterious materials or you should add new bars if the existing ones are no longer appropriate
- Before applying THIXOCRETE the substrate should be saturated with water
- Remove excess water, if any.
- In a clean bucket, initially pour the minimum amount of water indicated, start the mixer and add THIXOCRETE continuously. Mix (in low speed) until a homogeneous, without lumps, mixture is achieved
- Then leave the mixture to settle for 2 – 3 min and if necessary add water (according to the amount indicated), and mix again until the required consistency is achieved.
- Hand mixing of the product is not recommended.
- The mortar can be applied by trowel or sprayed.
- The final levelling /smoothing of the surface, may only begin once the mortar has started to set
- After application, the mortar should be properly cured for at least 2 days. During the summer period with wet burlaps, spraying water or curing agents and during winter period should be protected from low temperatures with plastic sheets

The above application guidelines are indicative, for the correct use of the product. For more technical details please contact the company's technical department.

*We guarantee the quality of all our products, on the basis of their technical specifications, as described in the Declaration of Performance (CE) and this technical data sheet. Such guarantee refers only to the products that we deliver for use and not to its application or final result, which largely depend on the experience and quality of work of each user and on the application conditions. The user is advised to test the product on a small scale, and if he is satisfied with the result, then to use the product on large scale in his project. This edition of technical data sheet automatically cancels any previous version*