

# MEGACRET-50 THIXO

## High-strength, fiber-reinforced, thixotropic repairing cement mortar

### Description

High-strength, fiber-reinforced repairing cement mortar. It provides:

- Superior strength.
- Very good bonding to the substrate.
- Excellent workability.
- Reduced water permeability.
- Volume stability.

It is classified as a PCC R4 mortar for concrete repairs, according to EN 1504-3. MEGACRET-50 THIXO has received an Environmental Product Declaration (EPD) following an assessment of its life-cycle environmental impacts. Registration No: S-P-06172, The International EPD® System.

### Fields of application

MEGACRET-50 THIXO is suitable for highly demanding repairs in concrete elements. It is applied with a trowel or pneumatically with a gunite process on floors, walls or ceilings. MEGACRET-50 THIXO has been successfully tested as a suitable material for the preparation and repair of tunnel inner shells prior to the application of the two-component water-based epoxy coating EPOXYCOAT-W, used as the final coating, in accordance with the ÖBV guideline "Tunnel Coatings" (ÖBV-Merkblatt Tunnelbeschichtungen).

### Technical data

Form:	cementitious powder
Color:	grey
Grain size:	up to 3 mm
Water demand:	3.8-4.0 l/25 kg bag
Pot life:	2 h at +20°C
Maximum layer thickness (1 layer):	50 mm
Bulk density of dry mortar:	1.60 ± 0.10 kg/l
Bulk density of fresh mortar:	2.20 ± 0.10 kg/l

#### Flexural strength:

- After 24 hours: > 7.00 N/mm<sup>2</sup>
- After 7 days: > 8.00 N/mm<sup>2</sup>
- After 28 days: > 9.00 N/mm<sup>2</sup>

#### Compressive strength: (EN 12190)

- After 24 hours: > 30.00 N/mm<sup>2</sup>
- After 7 days: > 50.00 N/mm<sup>2</sup>
- After 28 days: > 60.00 N/mm<sup>2</sup>

#### Elastic modulus: (EN 13412)

Chloride ion content: 0.00% (EN 1015-17)

Adhesion: (EN 1542) ≥ 2.00 N/mm<sup>2</sup>

Thermal compatibility Part 1 (50 freeze-thaw cycles): (EN 13687-1) ≥ 2.00 N/mm<sup>2</sup>

Capillary water absorption: (EN 13057) 0.30·kg·m<sup>-2</sup>·h<sup>-0.5</sup>

Reaction to fire: (EN 13501-1) Euroclass A1

Carbonation resistance: (EN 13295) pass

### Directions for use

#### 1. Substrate preparation

The substrate must be free of dust, grease or any foreign matter. Before applying MEGACRET-50 THIXO, the substrate has to be thoroughly dampened and then the excess of water should either be evaporated or removed with compressed air.

#### 2. Application

A 25 kg bag of MEGACRET-50 THIXO is gradually added into 3.8-4.0 kg of water under continuous stirring, until a homogenous, tight mass is formed, appropriate for repair works. Either a low-speed mixer or a concrete mixer could be used for the mixing. The material should be applied (pressed) in the desired thickness - up to 5 cm per layer - with a trowel or pneumatically with a gunite



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process. When a second layer is required, the surface of the first layer should be roughened, to achieve better adhesion.

The final surface should be well protected from dehydration by being covered with wet cloths or polyethylene sheets, or repeatedly dampened for 48 hours.

## Consumption

Approx. 19 kg/m<sup>2</sup>/cm of layer thickness.

## Packaging

MEGACRET-50 THIXO is available in 25 kg bags.

## Shelf-life - Storage

12 months from production date, stored in its original, unopened packaging, in places protected from moisture and frost.

## Remarks

- Application temperature must be between +5°C and +30°C.
- At low temperatures and in case early strength development is required, it is recommended to mix the material with lukewarm water.
- The product contains cement that reacts with water forming alkaline solutions, thus is classified as irritant.
- Consult the directions for safe use and precautions written on the package.



2032

**ISOMAT S.A.**

17<sup>th</sup> km Thessaloniki – Ag. Athanasios  
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

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EN 1504-3

Concrete repair product for structural repair PCC mortar (based on hydraulic cement, polymer modified)

DoP No.: MEGACRET-50 THIXO/1270-01

Compressive strength: class R4

Chloride ion content: ≤ 0.05%

Adhesive Bond: ≥ 2.0 MPa

Carbonation resistance: Pass

Elastic modulus: ≥ 20 GPa

Thermal compatibility part 1: ≥ 2.0 MPa

Capillary absorption: ≤ 0.5·kg·m<sup>-2</sup>·h<sup>-0.5</sup>

Dangerous substances: comply with 5.4

Reaction to fire: Euroclass A1

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BUILDING CHEMICALS, MORTARS & PAINTS  
HEADQUARTERS – THESSALONIKI, GREECE

17<sup>th</sup> km Thessaloniki – Ag. Athanasios Road  
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece  
T +30 2310 576000

[www.isomat.eu](http://www.isomat.eu) e-mail: [support@isomat.eu](mailto:support@isomat.eu)