

# CERMIREP R4 T

CEMENT BASED, R4 CLASS, POLYMER REINFORCED,  
STRUCTURAL REPAIR MORTAR WITH THICK FILLING



Grey



- *Water and frost resistant*
- *Non-shrinkable and none-cracking*

- *High mechanical strength and adhesion strength, fiber reinforced*
- *Ease of application with its non-corrosive structure*

## PRODUCT INFORMATION

### WHERE TO USE

- Repair and leveling of concrete structures
- For repairing of columns and beams and filling the core and rod holes,
- In the repair of superficial concrete segregations
- Suitable for use between 5-30 mm in a single coat

### GENERAL FEATURES

- Structure** : Powder product containing high quality cement, filler, performance polymer and fiber additives.
- Colour** : Grey
- Dry Mortar** :  $1.75 \pm 0.10 \text{ g/cm}^3$
- Wet Mortar** :  $2,00 \pm 0,10 \text{ g/cm}^3$
- Granular Size** :  $\leq 2000 \mu\text{m}$

### TECHNICAL CHARACTERISTICS

- Compressive Strength** : 1 day 10-25 MPa (EN 196-1)  
28 day;  $\geq 45 \text{ MPa}$
- Flexural Strength** :  $\geq 10 \text{ MPa}$  (EN 196-1)
- Tensile Adhesion Strength** :  $\geq 2.0 \text{ MPa}$  (EN 1542) (at 23 °C and RH60%)
- Fire Resistance** : Classification without A1 Test
- Capillary Absorption** :  $\leq 0.05 \text{ kg.m}^{-2}.\text{h}^{0.5}$  (EN 13057)

(\*These values are obtained as a result of laboratory experiments and are the performance values of the finished applications after 28 days. These values may change depending on site conditions.

### STANDARDS AND DOCUMENTS

- EN 1504-3 R4
- CE
- Public works pos no : 10.300.2072

### PACKAGING

- 20 kg kraft bags (60 pieces on a pallet / 1200 kg)

### CONSUMPTION

- 18-20 kg/m<sup>2</sup> (1 cm thickness)

### STORAGE

- Maximum 10 kraft bags can be stacked on top of each other.
- It should be stored in a moisture-free and dry warehouse which is -well-protected against atmospheric conditions weather conditions.
- Shelf life is 1 year under proper storage conditions.
- Opened packages should be kept tightly closed.



Interior -  
Exterior



Surface  
Inspection



Application  
Temperature



Stir



Pot Life



Impact  
Resistance



Water Pressure  
Resistance



Application  
with Trowel



Freeze Thaw  
Resistance



Vertical Use

## APPLICATION

### APPLICATION PROCEDURE

<b>Application Thickness</b>	: 5-30 mm
<b>Application temperature</b>	: +5 °C ; +35 °C
<b>Pot Life</b>	: 30 minutes (23 °C)
<b>Putting into use</b>	: Min. 1 day
<b>Complete curing</b>	: 28 days
<b>Wait time between coats</b>	: 2-3 hours

### SUBSTRATE PREPARATION

- Application surfaces must be free from dust, dirt, oil, etc. and dry, smooth and sound.
- The surface should not be too dry or completely wet before application. Before applying on surfaces exposed to direct sunlight or overheated, the surface temperature should be reduced by moistening with water sprinkling method.
- It is recommended to use **CERMIFILM** primer on absorbent surfaces.
- In repairs to be made on old concrete and reinforcement, **CERMIREP PASIV T** should be used as a primer to increase adhesion, and **CERMIREP** repair mortar should be applied before it completely dries.

### APPLICATION

- For a 20 kg bag of material, 3.2-3.6 liters (16-18%) of clean water should be slowly poured into a container with clean water and mixed with a low speed (400 rpm) hand mixer for 3-4 minutes until it reaches a homogeneous consistency.
- The mortar should be rested for 2-3 minutes and then mixed again before application.
- **CERMIREP R4 T** can be applied to all surfaces to be repaired using a steel trowel.
- If 2 coats are to be applied, wait 2-3 hours between coats. The times given in the application information and steps may be shortened or extended in different environmental conditions (low/high temperature, humidity, wind, etc.).
- After application, the surface should be kept continuously moist or cured by appropriate methods (e.g., using CermiCure Curing Material) to prevent the loss of the necessary water within the product due to external factors, ensuring proper hydration and strength development.



### RECOMMENDATIONS

- Do not apply it on frost hazardous or overheated surfaces, under direct sunlight and in windy weather.
- If petrification is detected after opening the bags, the product should not be used.
- The product should be used within the life of the container after mixing.
- No foreign materials such as lime, cement or gypsum should be added into the mortar.
- Amount of water indicated on the bag should be observed.
- The applied surface should be moistened for 1-2 days, direct sunlight, wind, frost, etc. effects should be protected.
- Protect the applied surfaces against direct sunlight, rain and frost for at least 24 hours.
- Do not apply on new plastered or concrete surfaces before the curing time is completed.

### SAFETY INSRUCTIONS

- As it is cement based, do not inhale and avoid of its contact with skin and eyes.
- It is recommended to use appropriate work equipment (gloves, goggles, mask, knee pads, etc.) during application of the product.
- For more detailed information please read the Material Safety Data Sheet (MSDS)

**Note:** Technical values and application instructions are valid under ambient temperature of 23 °C with relative humidity 0% and they are the results of our tests and experience in accordance with international standards. Our company is not responsible for any errors that may occur if the instructions and recommendations specified in the technical data sheets are not followed.

**CERMIX**

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