

# CONREPA 410

## Cement Based, Structural Repair Mortar

Technical Data Sheet

### Description

CONREPA 410 is a cement based single component, polymer and fiber reinforced, thixotropic structural repair mortar with high strength.

### Fields of Application

- To repair of the reinforced concrete elements,
- To protect concrete against sulphate and chlorine,
- To repair and protect underground structures,
- Structural and non-structural repairs of high strength concrete elements
- To repair light and medium traffic floors,
- To repair the tie-rod and cone holes.

### Features and Benefits

- Non- shrink.
- Applicable as 10-40 mm thickness at one layer.
- Perfect bonding to the concrete and steel.
- High compressive strength.
- Does not sag due to the thixotropic behavior.
- Waterproof.
- Resistant to chloride, sulphate and oils.
- Easy to apply, mixed with only water.

### Technical Data

Content: Mineral fillers, polymer modified special cement

Color: Grey

Mixing Ratio: 25 kg CONREPA410 max. 4 L water

Mixture Density :  $2,25 \pm 0,1$  g/cm<sup>3</sup>

Adhesion Strength (Concrete):  $>2,0$  N/mm<sup>2</sup> (28 days) (TS EN 1542)

Compressive Strength:  $>20$  N/mm<sup>2</sup> (1 day) (TS EN 196)  $>50$  N/mm<sup>2</sup> (7 days)  $>60$  N/mm<sup>2</sup> (28 days)

Flexural Strength:  $>7$  N/mm<sup>2</sup> (28 days) (TS EN 1542)

Elastic Modulus:  $>20000$  N/mm<sup>2</sup> (28 days)

Capillary Water Absorption:  $< 0,5$  kg/m<sup>2</sup>.saat0,5(TS EN 13057)

Service Temperature: -20°C to +400°C

Application Temperature: +5°C to 30°C

Application Tools: Trowel

Pot Life: 30 minutes

Curing Time:

Pedestrian Traffic: 24 hours

Fully Curing: 28 days

HS Code: 3214.10.90.00.00

### Application Procedure

#### Preparation of Substrate

Concrete surface must be sound, clean and dry. Surface must be clean off dust, dirt, rust, oil and all contaminants. If there is a water leakage, it must be drained or properly plugged. Concrete surfaces must be saturated with water before application. Immediately before pouring, surface should be wetted, then remove all excess or standing water from within any formwork.

#### Application Method

25 kg CONREPA 410 is poured into maximum 4 liters of water and mix for 3-4 minutes under low speed mixer until having a homogenous consistency. Let the mortar have rest for 4 minutes and remix for 30 seconds. Prepared mortar should be applied within 30 minutes in 20°C. CONREPA 410 is applied on the surface by using a steel trowel or spray gun. Application thickness should be between 10-40 mm. If needed second coat should be applied after 24 hours in same way. If required more smooth finish, water should be sprayed onto the mortar and the surface should be finished with using steel or wooden trowel. Application surface must be protected from the rain, wind, frost etc. during first 24-48 hours after finishing repair.

#### GRADA YAPI KİMYASALLARI VE İNŞAAT MALZEMELERİ ÜRETİM SAN. TİC. A.Ş.

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### Consumption

For 10 mm thickness approximately 19,2 kg/m<sup>2</sup> powder is required. Recommended application thickness is min. 10 mm / max. 40 mm.

**Packaging:** 25 kg kraft bag

**Shelf Life:** 12 months in original, unopened package.

**Storage:** Store in dry area between +5°C and +35°C. Protect from heat, freezing and direct sunlight.

**Cleanup Information:** Clean tools and equipment with water immediately after use. Dried material can only be removed mechanically.

### Cautions / Limitations

- Application surface must be protected from the rain, wind, frost etc. during first 24-48 hours after finishing repair.
- Do not use curing material.
- Substrate pH must be at least 5.5.
- Prepared repair mortar must be applied within 30 minutes at 20°C.
- It may be harmful with skin contact.
- Do not apply in freezing conditions or during precipitation.
- Protect applied materials from rain, freezing, foot traffic and continuous high humidity until completely dry.
- Do not use when air and surface temperatures are below +5°C and above +35°C.
- Allow 4 weeks before washing or cleaning for full cure.

### Health and Safety

Warning! Cause eye and skin irritation. If eye or skin contact, get immediate medical attention. If swallowed, do not induce vomiting. Call a physician or poison control center. Never give anything by mouth to an unconscious person.

Wash hands thoroughly after handling. Wear protective clothing, gloves, eye and face protection. Do not eat, drink or smoke when using this product.

Take off contaminated clothing and wash it before reuse. Dispose of unused, contents, container and other contaminated wastes in accordance with local, state, federal and provincial regulations.

Keep container closed when not in use. Keep out of the reach of children.

**Limited Warranty:** This product is subject to a written limited warranty which can be obtained free of charge from GRADA Company. Please contact with technical service department for further information and support.

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GRADA YAPI KİMYASALLARI VE İNŞ. MALZ. PAZ. VE ÜRT. SAN. TİC. A.Ş. Çınardere Mah. Akan Sok. No:13/3 Kat:2 Pendik / İstanbul	
<b>TÜRKİYE</b> <b>19</b>	
<b>1020 – CPR – 040 060274</b> <b>DOP NO: 0011</b> <b>EN 1504-3:2005</b> <b>GRADACONREPA 410</b> Yüksek Mukavemetli Kalın Tamir Harcı Tamir Methodu 3.1- 4.4 - 7.1 - 7.2 (Polimer Katkılı Hidrolik Çimento )	
Basınç Dayanımı	Sınıf R4
Yapışma Bağ Dayanımı	≥ 2Mpa
Sınırlanmış Büzülme/ Genleşme	UYGUN
Yangına Tepki	Sınıf A1
Tehlikeli Maddeler	Madde 5.4'e uygun



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