

MINING / CONSTRUCTION

CT-EP

ECC FINE REPAIR MORTAR IN CT-95 CONCRETE REPAIR SYSTEM

DESCRIPTION

Repair mortar CT-EP is a three-component material, ready-to-use after mixing all components. CT-EP is a fine cement-based mortar modified with rheology modifiers and epoxy dispersion (ECC). The material is dedicated for manual repairs of concrete surface as well as for spraying method. CT-EP is a part of the CT-95 Concrete Repair System.

APPLICATION AND USE

- Repair and reconstruction of concrete surface
- Surface concrete repair in chemically aggressive environments
- Finishing layer in works with use of construction repair mortars
- Wet spraying and manual application

ADVANTAGES

- Perfect consistency and workability
- Resistant to poor conditioning
- Rapid strength development
- Excellent final strength
- Excellent adhesion to concrete (green or hardened; moisturized or dry)
- Watertight, permeable for vapour
- Minimal rebound during spraying
- Resistant to aggressive environment
- Liquid components can be used as a strengthening primer for low strength, porous concrete



TECHNICAL DATA

The data below are laboratory data. They may vary in practice due to surface properties of the substrate, humidity, pressure, and other factors.

PRODUCT CHARACTERISTICS

Performance characteristics	CT-EP
Compressive strength	@ 28 days ≥ 50 MPa
Flexural strength	@ 28 days ≥ 7.0 MPa
Pull-off strength	@ 1 day ≥ 1.5 MPa
Pull-off strength	@ 28 days ≥ 2.5 MPa
Freeze-thaw resistance	≥ 200 cycles
Resistance to chemically aggressive environment	XA3

APPLICATION DATA

Parameter	CT-EP
Grain size	< 0.3 mm
The thickness of one layer: minimum/ maximum thickness	max 3 mm
Pot life at 20 °C	45 minutes
Output for 3 mm layer	Approx. 6 kg/m ²
Ambient temperature and substrate during application	min.+5 °C; max +30 °C

APPLICATION METHOD

1. Surface Preparation

Concrete surface should be cleaned from dust, loose pieces of concrete and protective coatings. Any remaining oil, petrol and paintings etc. have to be removed. CT-EP does not require long-term moisturizing of the concrete substrate, however, basic wetting is recommended, otherwise the mortar does not cover easily the dry substrate and the application may be difficult. In addition, lack of moisture in the substrate may cause blistering in the thin layer. In case of the excess of water it should be removed from the concrete substrate.

2. Mixing

Liquid components (A+B) should be thoroughly mixed in the bucket before being combined with the powder component (C). The powder component should be added carefully to avoid excessive air-entraining. Mixing should be carried out with use of slow rotation mixer - aeration reduces the strength of the coating. Mixing time should be limited to 5 minutes. The set of components should be mixed in a drum using a spiral paddle with a slow speed (400/500 rpm).

3. Execution

The application should be performed with use of steel or plastic trowel. Sponge or sponge roller can be used in order to obtain a smooth surface. It is recommended to perform a trial application in particular application site in order to verify the final aesthetic effect. If the application is carried out at elevated temperatures close to 30 ° C, the surface finish of the mortar should be completed within approx. 3 minutes - then polymer film is formed and, in the case of prolonged surface treatment, cracks on the surface of fresh mortar can appear. Cooling down the components may be necessary.

In case of use of mechanical placers (e.g. MAI, PFT) follow equipment manufacturer’s guidelines. In case of spraying the material the output of the pump should be adjusted to local conditions and surface finishing pace.

In case of application on large areas, it is recommended to arrange at least two persons to ensure proper coordination between application and surface finishing.

4. Curing

CT-EP does not require special conditioning. It should be protected from rain or flowing water until gets hardened.

5. Cleaning

Clean tools with water. When hardened clean mechanically.

SAFETY INSTRUCTIONS AND LIMITATIONS

Using gloves, eye-protection glasses and dust mask is recommended. For more details refer to our Material Safety Data Sheet.

The material should not be applied when the substrate and/or air temperature is 5°C and falling. At ambient temperatures close to 30°C, the application of the material may be difficult due to fast film forming. On the other hand, the fast film forming perfectly protect the material against too fast drying.

PACKAGING AND TRANSPORTATION

- Component A: hardener - 0.81 kg in 1 liter bottle.
- Component B: resin - 2.29 kg in 5 liter bucket or canister.
- Component C: powder - 17 kg in bag.

STORAGE AND SHELF LIFE

Shelf life 6 months when stored in dry and cool conditions.

DISPOSAL

Follow local regulations.

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ME-NS/TE/03/136-01/ CT-EP e01 (April 2017)

ADDITIONAL DOCUMENTATION

- CT-EP MSDS

LIST OF REPRESENTATIVES

- AUSTRIA: Minova MAI GmbH
- CZECH REPUBLIC: Minova Bohemia s.r.o.
- FRANCE / BELGIUM: Sales office Minova France / Belgium
- GERMANY: Minova CarboTech GmbH
- ITALY: Minova CarboTech GmbH Italy branch
- KAZAKHSTAN: Minova Kazakhstan LLP
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