

MINING / CONSTRUCTION / ENERGY

CT-P

PCC/SPCC FINE REPAIR MORTAR IN CT-95 CONCRETE REPAIR SYSTEM

CE identification according to EN 1504-3:2006 1488-CPR-0111/Z

DESCRIPTION

Repair mortar CT-P is a one-component material, ready-to-use after mixing with batched water. CT-P is a cement-based mortar with high quality fine aggregate up to 0,5 mm and modified with additives and polymers (PCC / SPCC). The material is dedicated for wet-process spraying as well as for manual repairs of concrete surface. CT-P is a part of CT-95 Concrete Repair System.



APPLICATION AND USE

- Repair and reconstruction of concrete surface. Suitable for concrete repair works: Principle 3, 4 and 7, Methods 3.1, 3.3, 4.4, 7.1, 7.2
- Surface concrete repair in chemically aggressive environment
- Finishing layer in works with use of construction repair mortars,
- Wet spraying and manual application

ADVANTAGES

- Perfect consistency and workability
- Watertight, permeable for vapour
- Rapid strength development
- Conforms to the requirements of EN 1504-3 R2 classification
- Ease and safety of use
- Excellent adhesion to concrete
- Minimal rebound during spraying
- Resistance to aggressive environment
- Non-combustibility

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-P
Compressive strength	@ 28 days ≥ 45 MPa
Flexural strength	@ 28 days ≥ 6.5 MPa
Bond strength by pull off	@ 28 days ≥ 2.0 MPa
Freeze-thaw resistance	≥ 200 cycles
Resistance of capillary absorption	≤ 0.5 $\frac{kg}{m^2 \cdot h^{0.5}}$
Thermal compatibility	≥ 1.2 MPa
Shrinkage	@ 56 days ≤ 1.26 ‰
Chloride ion content	≤ 0.05%

Resistance to carbonation	higher than control concrete MC (0.45)
Resistance to aggressive environment	XA2

APPLICATION DATA

Parameter	CT-P
Colour / form	grey powder with aggregates < 0.5 mm
The thickness of one layer: minimum/ maximum thickness	< 5 mm
Amount of water per 25 kg bag	4.5 – 4.75 liters
Pot life at 20 °C	60 minutes
Output	18 kg/m ² /10 mm
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 have to be removed. Cleaning the concrete substrate should be carried out by hydro-sandblasting. Properly prepared surface should have 1,5 MPa pull-off strength. The surface of the concrete should be wet with water 24 h before starting the repair. Directly before the application excess of water should be removed.

2. Equipment

Small quantities can be mixed in a drum using a spiral paddle with a slow speed (400/500 rpm) heavy-duty drill.

Greater quantities should be mixed using a forced-action mixer.

3. Execution

If mixing small quantities manually, add one bag 25 kg of the CT-6 to 4.5 – 4.75 litres of tap water. Mix at least for 5 minutes.

For larger volumes, pour 4.5 – 4.75 litres of tap water per every 25 kg bag and when the machine works, add remaining bags of CT-P and continue mixing. Depending on the ambient temperature and the required consistency, the amount of water required may vary slightly but should not exceed 4.75 litres per 25 kg bag of CT-P. Do not subsequently re-temper with extra water.

Note that in all cases CT-P powder must be added to water.

Application is performed with use of steel or plastic trowel.

In case of use continuous mixing placers (e.g. MAI 4YOU, PFT G-4) follow equipment manufacturer's guidelines.

4. Curing

The repaired area should be protect for a few days against drying, especially when direct sunlight and wither occur. The protection should start directly after application. These action is necessary to avoid shrinkage and/or cracks.

5. Cleaning

Clean tools with water. When hardened clean mechanically.

SAFETY INSTRUCTIONS AND LIMITATIONS

It is recommended that gloves, eye protection and a dust mask are used when handle CT-P. 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 5°C static temperature or at 5°C and rising, the application may proceed.

At ambient temperatures above 30°C, the material should be stored in the shade and cool water used for mixing.

PACKAGING AND TRANSPORTATION

25 kg valve sack, 40 bags per pallet. Other packing on request.

STORAGE AND SHELF LIFE

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

DISPOSAL

Follow local regulations.

APPROVALS AND CERTIFICATES

- Hygienic Certificate for contact with drinking water BK/W/0341/01/2019
- The product is labelled with CE mark acc. to EN 1504-3 Class R2 requirements. Factory Control Certificate 1488-CPR-0111/Z
- National Technical Approval IBDiM-KOT-2018/0135

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ADDITIONAL DOCUMENTATION

- CT-P 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
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