

**MINING / CONSTRUCTION**

**CT-K**

**PCC MORTAR IN CT-95 CONCRETE REPAIR SYSTEM**

**DESCRIPTION**

CT-K is a one-component material, ready-to-use after mixing with batched water. CT-K is a cement-based mortar with high quality aggregate up to 4 mm and modified with additives and polymers (PCC). CT-K is a part of CT-95 Concrete Repair System.

**APPLICATION AND USE**

CT-K is used to embed concrete or stone curbs and other items made of concrete or stone in the construction of road-bridges and industrial structures.



**ADVANTAGES**

- Perfect consistency and workability
- Watertight, permeable for vapour
- Rapid strength development
- High final strength
- Ease and safety of use
- Excellent adhesion to concrete and stone

**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	Performance
Compressive strength	@ 7 days ≥ 60 MPa @ 28 days ≥ 70 MPa
Flexural strength	@ 7 days ≥ 7.0 MPa @ 28 days ≥ 8.0 MPa
Bond strength by pull off <sup>1</sup>	@ 28 days ≥ 2.0 MPa
Freeze-thaw resistance	≥ 200 cycles
Young modulus	≥ 30 GPa
Shrinkage after 56 days	≤ 0.36 ‰
Resistance of capillary absorption	≤ 0.5 $\frac{kg}{m^2 \cdot h^{0.5}}$

1. with CT A/S bonding grout

**APPLICATION DATA**

Description	Value
The character of the material	grey powder with aggregates < 4 mm
Mixing ratio	2.3-2.8 litres of water per 25 kg bag
Output on the 10 mm layer	about 20 kg/m <sup>2</sup>
Pot life	60 min at 20 °C
The thickness of one layer	up to 50 mm
Ambient temperature and substrate during application	min.+5 °C; max +30 °C

**APPLICATION METHOD**

1. Surface Preparation

Usually curbs are building in on a fresh concrete. In other cases the surface needs standard preparation. Concrete surface should be cleaned from dust, loose pieces of concrete and protective coatings. 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-K to 2.3 – 2.8 litres of tap water. Mix at least for 5 minutes.

For larger volumes, pour 2.3 – 2.8 litres of tap water per every 25 kg bag and when the machine works, add remaining bags of CT-K and continue mixing. Depending on the ambient temperature and the required consistency, the amount of water required may vary slightly but should not exceed 2.8 litres per 25 kg bag of CT-K. Do not subsequently re-temper with extra water.

4. Curing

The repaired area should be protected for a few days against drying, especially when direct sunlight and wither occur. The protection should start directly after application. This 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 handling CT-K. 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**

1. Hygienic Certificate HK/B/0820/01/2017
2. National Technical Approval IBDiM-KOT-2018/0135

## **DISCLAIMER**

The Minova Logo is a registered trademark.

Copyright © 2019 Minova. All rights reserved

All information contained in this document is provided for informational purposes only and is subject to change without notice. Since Minova cannot anticipate or control the conditions under which this information and its products may be used, each user should review the information in the specific context of the intended application. To the maximum extent permitted by law, Minova specifically disclaims all warranties express or implied in law, including accuracy, non-infringement, and implied warranties of merchantability or fitness for a particular purpose. Minova specifically disclaims, and will not be responsible for, any liability or damages resulting from the use or reliance upon the information in this document.

ME-NS/TE/03/56-01/ CT-K e04 (March 2015)

## **ADDITIONAL DOCUMENTATION**

- CT-K 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
- POLAND: Minova Ekochem S.A.; Minova Arnall Sp. z o.o.; Minova Ksante Sp. z o.o.
- RUSSIA: ZAO "Carbo-ZAKK"
- SLOVAKIA: Minova Bohemia s. r. o., organizačná zložka
- SOUTH AFRICA: Minova Africa (Pty) Ltd.
- SPAIN: Minova Codiv S.L.U.
- SWEDEN / NORWAY: Minova Nordic AB
- UNITED KINGDOM: Minova Weldgrip Ltd.; Minova International Ltd.
- APAC: Minova Australia Pty Ltd.
- AMERICAS: Minova USA Inc.

## **CUSTOMER SERVICE**

For additional support options available at your area, contact our local offices.

[www.minovaglobal.com](http://www.minovaglobal.com)