

MINING / CONSTRUCTION

CT-W

SPCC REPAIR MORTAR IN CT-95 CONCRETE REPAIR SYSTEM

DESCRIPTION

CT-W is a one-component material, ready-to-use after mixing with batched water. CT-W is a cement-based mortar with high quality aggregate up to 2 mm and modified with additives and polymers (PCC / SPCC). CT-W is a part of CT-95 Concrete Repair System.

APPLICATION AND USE

CT-W is used for repairing concrete or reinforced concrete structures. It can be applied with use of wet spray method, and in verified cases manually.



ADVANTAGES

- Perfect consistency and workability
- Watertight, permeable for vapour
- Rapid strength development
- High final strength
- Ease and safety of use
- Excellent adhesion to concrete
- Minimal rebound during spraying
- Hardened material approved for contact with potable water
- 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	Performance
Compressive strength	@ 7 days ≥ 40 MPa @ 28 days ≥ 55 MPa
Flexural strength	@ 7 days ≥ 5.5 MPa @ 28 days ≥ 7.0 MPa
Bond strength by pull off	@ 28 days ≥ 2.0 MPa
Freeze-thaw resistance	≥ 200 cycles
Young modulus	≥ 20 GPa
Shrinkage after 56 days	≤ 0.48 ‰
Resistance of capillary absorption	≤ 0.5 $\frac{kg}{m^2 \cdot h^{0.5}}$

APPLICATION DATA

Description	Value
The character of the material	grey powder with aggregates < 2 mm
Mixing ratio	2.5-2.9 litres of water per 25 kg bag
Wear on the 10 mm layer	about 20 kg/m ²
Pot life	60 min at 20 °C
The thickness of one layer	up to 30 mm
Ambient temperature and substrate during application	min.+5 °C; max +30 °C

APPLICATION METHOD

CT-W should be prepared by mixing with water in the amount of: 2.5-2.9 litres of water per 25 kg CT-W. Mixing should be carried out to obtain a homogeneous mass within approximately 5 min.

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

Standard equipment for wet spraying method can be used. Every new application should be preceded by a verification trial.

3. Execution

If it is necessary surface corrosion protection of reinforcement with use of CT-A/S mortar can be provided.

CT-W can be sprayed in one or more layers, depending on the designed thickness. In the case of multilayer application of CT-W every following layer should be sprayed on a rough and wet surface (previous layer). If the surface is completely set and dry it should be wetted.

The last layer may be smoothed with wooden, plastic or sponge trowel with using no additional water. As an alternative for smoothing the last layer may be covered with fine PCC mortar CT-P.

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-W. 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/W/0473/01/2014
2. National Technical Approval IBDiM-KOT-2018/0135

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ADDITIONAL DOCUMENTATION

- CT-W MSDS

LIST OF REPRESENTATIVES

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- KAZAKHSTAN: Minova Kazakhstan LLP
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