

# **PCC SYSTEM**

# One component, mineral, anticorrosion protection and contact mortar "2 in 1"

Mortar to protect steel and concrete surfaces

# **CHARACTERISTICS**

- reinforced steel protection and contact layer
- inside and outside use
- waterproof
- resistant to frost and de-icing road chemicals
- mineral
- modified with polymers
- one component
- very good adhesion to steel and concrete
- with corrosion inhibitors
- easy to use on vertical and horizontal surfaces

# SCOPE OF USE

Mortar Ceresit CD 30 is used for anticorrosion protection of reinforced bars and as well as a contact layer on the concrete and reinforced concrete before the application of other system components. Mortar Ceresit CD 30 has high adhesion to steel and concrete. Application of CD 30 between concrete and repair mortar enables the achievement of very good parameters of mutual cooperation at the top layer. The mortar can be applied on the concrete of the class above C12/15. Due to the specially prepared formulation and the content of corrosion inhibitors the mortar is an efficient anticorrosion protection of reinforced steel. Ceresit CD 30 is a part of concrete repair system Ceresit PCC. Ceresit PCC system is designed for filling losses, reprofiling balconies and as s PCC system it is used for making the complex repairs for various types of cement and reinforced concrete structures. It allows for repairing the structures in the emergency situations due to exploitation or destruction under the influence of mechanical factors or corrosive ones. It is adequate to repair the following types of constructions: balconies, overpasses, reinforced concrete ditches, ceilings, etc. It may be also used for repairing such construction objects as concrete and reinforced concrete tanks (including waste treatment plants), flyovers, frame structures and multi board structures, monolithic structures (including swimming pools), reinforced concrete,



chimneys, refrigerators, etc. Products of Ceresit PCC system are resistant to weather conditions and direct impact of deicing road chemicals, including salts. They are characterised with water resistance and diffusion, as well as extensive carbonised resistance due to which they contribute to the extension of the construction lifetime.

# SUBSTRATE PREPARATION

CD 30 adheres to crack-free, load bearing, clean concrete substrates, free from any substance, which may impair adhesion. The substrate should have sufficient compressive strength (concrete class above C12/15) and pull-off strength of minimum 1,0 MPa.

#### Concrete

Corroded and carbonated concrete and any loose elements should be carefully removed. Any stains, the layer of cement wash, anti-adhesion agents, old layers should be mechanically removed. The surface of the concrete should be rough and porous, ensuring good adhesion. The substrate should be mechanically prepared e.g. through abrasive blasting, grounding or milling. Before the application of mortar CD 30 the concrete mortar should be sprayed with water without any puddles formed. The substrate should be damp; however, there should be no water pools.

#### Reinforcement

The corroded reinforcing bars should have the concrete support removed up to the places which are not corroded. The reinforcing bars should have rust removed by sand – blasting to the degree of cleanliness of Sa 2,5 so that they acquire clear, metallic appearance and then they should be cleaned with compressed oil free air. During the application of mortar CD 30 the steel may be damp. The anticorrosion mortar CD 30 should be applied no longer than 3 hours since the time of cleaning the reinforced bars.

# APPLICATION

#### Preparation of the mortar:

The content of the packaging should be poured to the measured amount of clean water and mixed with the slow rotating drill with a mixer until the homogenous mass without lumps is obtained.

#### **Protection of reinforcement:**

Within the pot life the ready mortar should be applied with the brush on the protruding, cleaned reinforcement. The mortar should be evenly spread to cover the surface of bars. When the first layer becomes hardened (after approximately 3 hours) it should be applied the second layer.

#### **Contact layer:**

In case of the application of the contact layer the ready mortar Ceresit CD 30 should be brushed in the cleaned, damp concrete substrate and previously protected reinforced steel. The next mortar layers of Ceresit PCC system should be applied after contact layer is initially dry, when the mortar has become slightly damp, i.e. within 30–60 minutes after the application. In case of exceeding this time the contact layer should be applied once again, however, only when the previous one is completely hardened.

#### **PLEASE NOTE**

Use CD 30 in dry conditions, the temperatures of air and substrate from +5 to +30 °C and relative humidity below 80 %. Fresh stains should be washed with water, whereas the hardened ones should be removed only in a mechanical manner. CD 30 contains cement and when mixed with water it causes alkaline reaction. Therefore skin and eyes should be protected. In case of contact with eyes they should be rinsed with water and the general practitioner should be consulted. Chromium VI content- below 2 ppm during the lifetime of the product.

## PACKAGING

Bags of 25 kg.

## **TECHNICAL DATA**

Base:	cement with mineral fillers and high quality powder resin and corrosion inhibitors
Colour:	grey
Grain size:	0÷0,8 mm
Mixing ratio (to apply with the brush)	approx. 6,75 l water per 25 kg
Pot life:	approx. 60 min
Application temperature:	from +5°C to +30°C
Next layer application: -the second anticorrosion layer -contact layer after the applica- tion of the anticorrosion layer time between the application of subsequent layers: -application of the repair or fil- ler on the contact layer when the mortar is initially dry and	
has become slightly damp:	max. 30-60 min
Adhesive tension strength after 28 days:	≥ 1,5 MPa
Temperature resistance:	from -50°C to +70°C
Consumption: - anti-corrosion layer: - contact layer:	approx. 2 kg/m <sup>2</sup> per 2 layers with the total thickness of approx. 1 mm approx. 1,5 kg/m <sup>2</sup> , anticipated consumption may change depending on roughness and evenness of the substrate
Storage:	up to 12 months since the production date when stored on pallets in dry conditions and in original undamaged packages. <b>Protect against frost!</b>

This product is compatible with the standard PN-EN 1504-7:2006, it possesses Declaration of Perfomance no 00172/01.07.2013, Factory Plan Control Certyficate no. WE 1488-CPD-0127/Z issued by Instytut Techniki Budowlanej, the hygiene certificate of Państwowy Zakład Higieny for contact with drinking water no HK/W/0942/01/2013.

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Apart from the information given here it is also important to observe the relevant guidelines and regulations of various organisations and trade associations as well as the respective standards of the German Standards Institute (DIN). The aforementioned characteristics are based on practical experience and applied testing. Warranted properties and possible uses which go beyond those warranted in this information sheet require our written confirmation. All data given was obtained at an ambient and material temperature of +23 °C and 50 % relative air humidity unless specified otherwise. Please note that under other climatic conditions hardening can be accelerated or delayed.

The information contained herein, particularly recommendations for the handling and use of our products, is based on our professional experience. As materials and conditions may vary with each intended application, and thus are beyond our sphere of influence, we strongly recommend that in each case sufficient tests are conducted to check the suitability of our products for their intended use. Legal liability cannot be accepted on the basis of the contents of this data sheet or any verbal advice given, unless there is a case of wilful misconduct or gross negligence on our part. This technical data sheet supersedes all previous editions relevant to this product.



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