

CD 25

PCC SYSTEM

Fine concrete repair mortar, from 5 to 30 mm

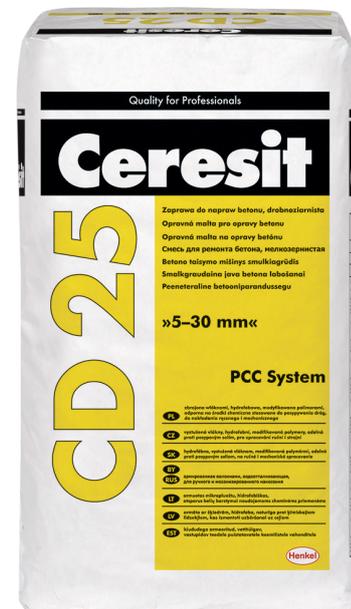
Cement mortar for thin layers

CHARACTERISTICS

- ▶ **low shrinkage**
- ▶ **inside and outside use**
- ▶ **waterproof**
- ▶ **resistant to frost and de-icing road chemicals**
- ▶ **fast hardening**
- ▶ **hydrophobic**
- ▶ **reinforced with fibres**
- ▶ **mineral**
- ▶ **modified with polymers**
- ▶ **one component**
- ▶ **very good working parameters**
- ▶ **for manual and mechanical application**

SCOPE OF USE

Ceresit CD 25 is a fine-grained one component filler to smooth out concrete and reinforced concrete, to fill cracks/voids and repair damaged substrates. The range of application is from 5 to 30 mm. Ceresit CD 25 may be applied both on vertical and horizontal surfaces inside and outside the buildings. The mortar can be applied manually or mechanically. The mortar can be applied on the concrete of the class above C12/15. Ceresit CD 25 is a part of concrete repair system Ceresit PCC. Ceresit PCC system is designed for filling crack/voids, re-profiling balconies, as well as for making the complex repairs for various types of cement and reinforced concrete structures. It allows for repairing the structures even when they have been severely damaged due to exploitation or destruction under the influence of mechanical or corrosive factors. It is suitable for repairing the following types of constructions: balconies, overpasses, reinforced concrete ditches, ceilings, etc. It may also be 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 de-icing 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 life-time. Do not use for repairing light concrete.

SUBSTRATE PREPARATION

Ceresit CD 25 adheres to crack-free, load-bearing, clean concrete substrates free from any substances, 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, grinding or milling.

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. Before the application of Ceresit CD 25, the uncovered reinforcing bars should be covered with anticorrosion protection CD 30 twice. Concrete substrates should be sprayed with water without any puddles formed and then the slightly damp substrates and the previously protected reinforced steel should be covered with the contact layer Ceresit CD 30.

The repair mortar should be applied on the slightly damp contact layer, however, not longer than after 30–60 minutes. In case of exceeding this time, the contact layer should be applied once again provided that the previous layer is completely dry.

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. Then it is necessary to wait 3 minutes and mix the mortar once again.

Application of the mortar:

Within the pot life the ready mortar should be applied with the trowel on the freshly applied contact layer or poured to the form and it should be properly structured. In case of larger areas it is advisable to use vibration scantlings. The surface of the filler should be smoothed with the steel trowel or with the plastic trowel or sponge within approx. 5–20 min. Mortar Ceresit CD 25 may be applied with the application of a gunite method. Mortar can be applied on the single application on the vertical surfaces up to 30 mm thickness. In case of the application of mortar in a few layers or the application on mortar CD 26 the time between the consecutive applications should not exceed 3 hours. Otherwise it is necessary to wait 24 hours, make the substrate damp again, to apply contact layer and only to re-apply the filler. Mortar Ceresit CD 25 can be used as the final layer. After 2 days mortar Ceresit CD 25 can be covered with the filler Ceresit CD 24.

Additional protection of concrete:

The additional protection for concrete against corrosion, harmful water impact, frost, aggressive agents and weather is to cover the mortar of CD 25 with acrylic paint Ceresit CT 44 or flexible insulation layer Ceresit CR 166. These layers can be applied after 3 days when CD 25 has been applied.

PLEASE NOTE

Use CD 25 only in dry conditions, the temperatures from +5 to +30 °C and relative humidity below 80 %. The mortar should be protected against too fast drying caused by the strong insolation, draughts, etc. The mortar should be protected against rain until it dries completely. In such case it is recommended to use the scaffolding protection. Fresh stains should be washed with water, whereas the hardened ones should be removed only in a mechanical manner. Do not mix with other aggregates, additives or binders. Do not cover with

gypsum materials. CD 25 contains cement and reacts with water, producing an 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 life-time of the product.

PACKAGING

Bags of 25 kg.

TECHNICAL DATA

Base:	cement with mineral fillers and high quality powder resin
Colour:	grey
Grain size:	0+2,5 mm
Mixing ratio:	approx. 3–3,5 l water per 25 kg
Maturing time:	approx. 3 min
Pot life:	approx. 30 min
Application temperature:	from +5 °C to +30 °C
Next layer application:	
–time between the application of subsequent layers of mortar	
CD 25:	max. until 3 hours
–application of the filler:	after approximately 2 days
–application of the protective layers:	after approx. 3 days
Class:	R3
Concentration of chlorine ions:	≤ 0,05%
Capillary absorption:	≤ 0,5 kg * m ⁻² * h ^{0,5}
Limited shrink:	≥ 1,5 MPa
Compressive strength:	after 28 days: ≥ 25 MPa
Bending tensile strength after 28 days:	≥ 8,0 MPa
Adhesive tension strength after 28 days:	≥ 1,5 MPa
Modulus of elasticity:	≥ 15 GPa
Parameters for mechanical application:	–flow: 10 l/min –nozzle diameter: 10"
Temperature resistance:	from –50 °C to +70 °C
Rain resistance:	after approx. 24 hours
Consumption:	approx. 1,5 kg / m ² / 1 mm thickness
Storage:	up to 12 months since the production date when stored on pallets in dry conditions and in original undamaged packages.

This product is compatible with the standard PN-EN 1504-3:2006, it possesses Declaration of Performance no 00174/01.07.2013, Factory Plan Control Certificate 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/0942/05/2013.

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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