

CT 85



Adhesive and Reinforcing mortar for EPS-boards

For fixing Expanded Polystyrene (EPS) boards as well as for applying a thin armoured layer for thermal insulation of buildings by means of light wet method

CHARACTERISTICS

- ▶ highly impact resistant
- ▶ unique fibre combination
- ▶ resistant to weather conditions
- ▶ resistant to hairlines and cracks
- ▶ high adhesion to mineral substrates and EPS-boards
- ▶ flexible
- ▶ possibility for machine application*

SCOPE OF USE

Ceresit CT 85 mortar is designed to warm up external walls of the buildings with the application of a light-wet method and EPS-boards. It is an element of ETICS (External Thermal Insulation Composite Systems) within Ceresit Ceretherm. CT 85 mortar is used for fixing EPS-boards as well as applying the armoured protection layer to insulate the newly erected objects and also the buildings to be thermo-renovated. CT 85 through the use of a highly targeted combination of special fibres, increases the resistance of insulation system on damage and resistance to the formation of cracks and hairlines.

SURFACE PREPARATION

1. Fixing EPS-boards

CT 85 mortar has good adhesion to carrying, compact and dry substrates, such as surfaces of walls, plasters, mosaics and concretes free from grease, bitumen, dust and other substances decreasing adhesion.

The adhesion to the existing plasters and paint coatings should be checked before starting the application. "Hollow" plasters should be removed. Any losses and uneven surfaces of the substrate below 20 mm should be filled with the filler CT 29 or covered with cement plaster. Any surface contaminant and other adhesion impairing substances, steam-tight paint coatings and the coats with low adhesion to the substrate should be completely removed, e.g. by means of washing devices operating under pressure. In case of mycological contamination with fungi, moss and algae, the surface of the façade should be cleaned with steel brushes and, then saturated with a fungicide solution of Ceresit CT 99 in compliance with technical instruction. The old, not plastered walls, strong plasters



and paint coats should be dusted, then washed with water jet and left until they go completely dry.

Substrates with high water absorption, e.g. walls made of aerated concrete blocks or silicate blocks should be primed with Ceresit CT 17 and left for drying for at least 4 hours.

Adhesion of CT 85 to the prepared substrate is checked by gluing 10 x 10 cm blocks of EPS-boards in a few places and pulling off manually after 4÷7 days. The load carrying ability of the substrate is sufficient only when the EPS-boards are subject to rent. If EPS-boards tear off with the mortar layer, mechanical anchors should be additionally used.

2. Armoured layer application

When CT 85 is set (after approx. 3 days), the boards should be ground with abrasive paper and additionally fixed with mechanical anchors.

If EPS-boards have not been covered with the armoured layer for 2 weeks, then their quality should be evaluated. The yellowed boards with dusting surface should be ground with coarse abrasive paper.

* Pump warm, nozzle size 6-8 mm, delivery rate c.a. 5-6 l/min., working pressure up to 40 bar, (e.g. Wagner PC 15) - after machine application surface needs smoothing with the long float.

APPLICATION

CT 85 should be poured into the measured amount of cool clean water and stirred with the drill by means of a mixer until the homogenous mass is obtained without lumps.

1. Fixing EPS-boards

The ready mortar should be applied with a trowel along the board edges forming a strip of 3÷4 cm wide and a few spots with the diameter of approx. 8 cm. Then immediately, the board should be pressed to the wall with a few slight blows of a long float. The properly applied mortar when pressed should cover minimum 40% of its surface. In case of even, smooth substrates the mortar should be applied by means of a toothed long float (teeth 10–12 mm). The boards should be fixed tightly one at the other in one surface with the preservation of "brick like manner" of vertical connection.

2. Armoured layer application

The ready mortar of 2÷3 cm-thick layer should be spread along the surface of the boards by means of a smooth long steel float. The glass fibre mesh should be applied on the fresh mortar (with 10-cm overlaps), and then the second 1 mm-thick layer should be applied and smoothed evenly so that the glass fibre mesh should not be visible.

Fresh stains should be cleaned with water while hardened elements should be mechanically removed.

PLEASE NOTE

The armoured layer should not be applied on highly sunny surfaces and the applied layer should be protected against rain. It is recommended to use scaffolding protection.

Application should be performed in dry conditions with the substrate and ambient temperature from +5°C to +25°C. All the data refer to the temperature of +20°C and relative air humidity of 60%. The product parameters may change in other conditions.

CT 85 contains cement and causes alkali reaction when mixed with water. 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.

The content of chromium VI – below 2 ppm till the expiry date.

OTHER INFORMATION

The requirements which should be fulfilled by EPS-boards and mechanical anchors and also other details that refer to thermal insulation are described in the Instruction ITB nr 418/2007 and 447/2009. Impact resistance fulfills ETA requirements in full Ceresit Ceretherm System. Depends of the reinforcing layer quality achieved by adequate application.

This technical data sheet determines the scope of application of the material and the way of conducting the work, however, it cannot replace the professional preparation of the contractor. Apart from the data provided, the application should be done in compliance with the construction and industrial safety regulations.

The manufacturer guarantees the quality of the product, however, he does not have any influence on the condition and the way of application. In case of any doubts, individual application trials should be conducted. The previously issued technical data sheets become invalid with the issue of this technical data sheet.

STORAGE

Up to 12 months since the production date when stored on pallets in dry cool conditions and in original undamaged packages.

PACKAGING

Bags of 25 kg.

TECHNICAL DATA

Base: cement mixture with mineral fillers and modifiers

Bulk density: approx. 1.3 kg/dm³

Mixing ratio: 6.5-7.0 l of water per 25 kg

Temperature of application: from +5°C to +25°C

Pot life: approx. 2 hours

Adhesion:

to concrete

>0.6 MPa

to EPS-boards

>0.1 MPa (breaking in EPS layer)

Assumed consumption:

Fixing of EPS-boards:

approx. 5.0 kg/m²

Armoured layer:

approx. 4.0 kg/m²

This product possesses:

- European Technical Approval (ETA) in systems:

Ceresit Ceretherm System	Classic	Classic (R)	Classic (B)	Classic (S)	Classic (E)	Visage
ETA	09/0014	09/0095	09/0097	09/0096	10/0228	11/0395
Certificate	1488-CPD-0104/W	1488-CPD-0108/W	1488-CPD-0107/W	1488-CPD-0110/W	1488-CPD-0200/W	1488-CPD-0237/W
DoC: Ceresit Ceretherm	WE-CC Classic 2/PL 15.02.2012	WE-CC Classic 2/RO 15.02.2012	WE-CC Classic 2/BG 15.02.2012	WE-CC Classic 2/RS 15.02.2012	WE-CC Classic 2/EE 15.02.2012	WE-CC Visage 1/PL 15.02.2012

- Technical Approvals in Systems:

Ceresit Ceretherm System	Classic	Ceramic	Express	Reno	Visage
TA	15-4397 /2008 + Annex No. 2	15-7027/2011	15-7152/2010 + Annex No. 1	15-8077 /2009 + Annex No. 1 and 2	15-8399/2011
Certificate	ITB-0109/Z	ITB-0137/Z	ITB-0173/Z	ITB-0355/Z	ITB-0416/Z
DoC: Ceresit Ceretherm	Classic /2/12/ 15.02.2012	Ceramic 2/12/ 15.02.2012	Express /3/12/ 15.02.2012	Reno /3/12/ 15.02.2012	Visage /1/11/ 01.07.2011

Apart from the information given here it is also important to observe the relevant guidelines and regulations of various organizations and trade associations as well as the respective standards. 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 +20 °C and 60 % 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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