

CT 87 "2in1"



Adhesive and Reinforcing mortar for EPS/MW

For fixing Expanded Polystyrene (EPS) boards and Mineral Wool boards as well as for applying a thin armoured layer for thermal insulation of buildings by means of ETICS

CHARACTERISTICS

- ▶ 2 in 1 – does not need priming before the application of plaster
- ▶ considerably lower consumption
- ▶ high adhesion to mineral substrates, EPS and wool
- ▶ vapour permeable
- ▶ flexible
- ▶ reinforced with fibres
- ▶ resistant to scratches and cracks
- ▶ resistant to weather conditions
- ▶ possibility for machine application*

SCOPE OF USE

Ceresit CT 87 mortar is designed to warm up external walls of the buildings by application of external thermal insulation composite system using EPS- or mineral wool façade boards. It is an element of following ETICS from Ceresit: Ceresit Ceretherm Premium or Ceresit Ceretherm Wool Premium and Ceresit Ceretherm Express. CT 87 mortar is used for fixing of EPS- or mineral wool façade boards and for applying the reinforcing protection layer to insulate the newly constructed objects as well as older buildings to be thermo-renovated.

CT 87 is additionally reinforced with fibres, therefore it is more resistant to the formation of cracks and hairlines. The application of CT 87 (colour, surface and organic modifiers) allows for omitting the substrate preparation process by priming with the priming paints before the application of any Ceresit plasters. The content of special light fillers gives the more flexible, light and homogenous consistency, it is easier to be stirred, applied and spread, thus increasing the efficiency of the mortar.

SURFACE PREPARATION

1. Fixing thermal insulation boards

CT 87 mortar shows 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 Ceresit CT 29 filler, or Ceresit CT 24 insulating plaster, 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 Ceresit CT 99 fungicide solution in compliance with the technical data sheet. The old, not plastered walls, strong plasters and paint coats should be de-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 CT 17 and left for drying for at least four hours.

Adhesion of CT 87 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.

* 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.

2. Armoured layer application

When CT 87 is set (after approx. 2 days), any unevenness of the boards should be ground with abrasive paper, then any loose particles of insulation materials should be carefully brushed whereas the boards should be additionally reinforced 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.

APPLICATION

CT 87 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 thermal insulation boards

The ready mortar should be applied with a trowel along the board edge forming a strip of 3÷4 cm wide and a few spots with the diameter of approx. 8 cm. Only in case of mineral wool boards, it is necessary to apply so called „priming“ with CT 87 on the whole surface of the board with the use of a metal long float before the adhesive mortar is applied. 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 should be spread along the surface of the boards by means of a toothed long float with the size of the teeth 10-12 mm. Only in case of mineral wool boards, it is necessary to apply so called „priming“ with CT 87. The glass fibre mesh should be applied on the fresh mortar, it should be immersed by means of a metal long float and filled smoothly. The properly immersed glass fibre should not be visible, it should be completely immersed in the adhesive mortar. It is necessary to use the approximately 10-cm overlaps of the neighbouring mesh belts.

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 insulated surfaces and the applied layer should be protected against rain. It is recommended to use scaffolding protection.

In case of the armoured layer exposed for winter without any plaster applied as the final layer of insulation system, CT 87 mortar does not require additional protection, e.g. priming.

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 87 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.



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OTHER INFORMATION

The requirements which should be fulfilled by EPS-boards and mineral wool boards as well as mechanical anchors and also other details that refer to thermal insulation are described in the Instruction ITB No. 418/2007 and 447/2009.

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, hydrophobic agents and modifiers
Bulk density:	approx. 1.3 kg/dm ³
Mixing ratio:	7.25÷7.75 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)
to mineral wool	>0.05 MPa (rent in mineral wool layer)

Assumed consumption:	
Fixing of EPS-boards:	approx. 4.0 kg/m ²
Armoured layer (on EPS-boards):	approx. 3.0 kg/m ²
Fixing of mineral wool boards:	approx. 4.5 kg/m ²
Armoured layer (on mineral wool):	approx. 4.0 kg/m ²

This product possesses:

- European Technical Approval (ETA) in systems:

Ceresit Ceretherm System	Premium	Premium (B)	Premium (B)
ETA	08/0308	09/0137	09/0137
Certificate	1488-CPD-0103/W	1488-CPD-0109/W	1488-CPD-0126/W
DoC: Ceresit Ceretherm	WE-CC Premium 2/PL 15.02.2012	WE-CC Premium 2/BG 15.02.2012	WE-CC W Premium 2/PL 15.02.2012

- Technical Approvals in Systems:

Ceresit Ceretherm System	Premium	Wool Premium	Express	Reno	Visage
TA	15-6986/2008 + Annex No. 2	15-7099/2008	15-7152/2010 + Annex No. 1	15-8077/2009 + Annex No 1 & 2	15-8399/2011
Certificate	ITB-0108/Z	ITB-0159/Z	ITB-0173/Z	ITB-0355/Z	ITB-0416/Z
DoC: Ceresit Ceretherm	Premium /2/12/ 15.02.2012	Wool Premium /1/09/ 02.02.2009	Express /3/12/ 15.02.2012	Reno /3/12/ 15.02.2012	Visage /1/11/ 01.07.2011