

ZU



Adhesive and Reinforcing mortar for EPS-boards

For fixing Expanded Polystyrene (EPS) boards and reinforced layer for thermal insulation of buildings by means of light wet method

CHARACTERISTICS

- ▶ flexible
- ▶ durable
- ▶ good adhesion
- ▶ resistant to weather conditions
- ▶ possibility for machine application*

SCOPE OF USE

Ceresit ZU mortar is designed to apply EPS-boards within Ceresit ETICS (External Thermal Insulation Composite Systems) with a light-wet method. ZU is part of Ceresit Ceretherm Popular. ZU mortar is used for applying to the EPS-boards as well as to prepare reinforced layer of newly erected objects and the buildings to be thermo renovated.

SURFACE PREPARATION

1. Fixing EPS-boards

ZU has very good adhesion to sound and carrying substrates, such as wall, plaster and cement substrates 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 should be filled 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 2 hours.

Before fixing EPS-boards the adhesion of the mortar should be checked by fix polystyrene boards (10x10 cm) to the prepared substrate and tear them of after 4-7 days. Load capacity is suf-



ficient when polystyrene boards are teared. While the boards are teared with the mortar, mechanical links should be used.

2. Preparing the reinforced layer

After the ZU set in (after 3 days) boards should be threat with sandpaper and additionally fixed using mechanical links. If the EPS-boards in 2 weeks wasn't cover with reinforced layer, his quality should be checked. Yellowed and with dusting surface required big grain sandpaper.

APPLICATION

ZU 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. Preparing the reinforced layer

Prepared mortar should be applied 2-3 mm layer on EPS-boards using smooth, steel trowel.

On fresh layer glass fibre net should be set (10 cm overlaps should be kept). Then the next layer can be applied (thickness 1 mm) and smoothed in order to net wasn't visible.

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

PLEASE NOTE

During preparing the reinforced layer work on sunny walls is inadvisable. The layer should be protected from rain. Protection of scaffolding is recommended.

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%. Faster or slower setting of the mortar may occur in different conditions. 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 No. 418/2007 and 447/2009.

ZU powder mortar shows irritated properties and cement and lime content 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.

OTHER INFORMATION

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.

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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PACKAGING

Bags of 25 kg.

TECHNICAL DATA

Base: cementitious and lime mixture with mineral fillers and modifiers

Bulk density: approx. 1.3 kg/dm³

Mixing ratio: 4.5 ÷ 5.0 l of water per 25 kg

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

Pot life: up to 90 minutes

Adhesion:
to concrete >0.3 MPa
to EPS-boards: >0.1 MPa (breaking in EPS layer)

Assumed consumption:
Fixing boards: approx. 5.0 kg/m²
Reinforced layer: approx. 4.0 kg/m²

This product possesses:

- European Technical Approval (ETA) in systems:

| Ceresit Ceretherm System | Popular | Popular (E) |
|--------------------------|----------------------------------|----------------------------------|
| ETA | 08/0309 | 10/0229 |
| Certificate | 1488-CPD-0102/W | 1488-CPD-0199/W |
| DoC: Ceresit Ceretherm | WE-CC Popular 2/PL 15.02.2012 | WE-CC Popular 2/EE 15.02.2012 |

- Technical Approvals in Systems:

| Ceresit Ceretherm System | Popular | Express | Reno | Visage |
|--------------------------|-------------------------------|------------------------------|-----------------------------------|-----------------------------|
| TA | 15-6894 /2008 + Annex No 2 | 15-7152/2010 + Annex No 1 | 15-8077 /2009 + Annex No 1 & 2 | 15-8399/2011 |
| Certificate | ITB-0068/Z | ITB-0173/Z | ITB-0355/Z | ITB-0416/Z |
| DoC: Ceresit Ceretherm | Popular /2/12/ 15.02.2012 | Express /3/12 15.02.2012 | Reno /3/12/ 15.02.2012 | Visage /1/11/ 01.07.2011 |