ZU

Adhesive and Reinforcing mortar for EPS

For fixing Expanded Polystyrene boards and reinforced layer for thermal insulation of buildings by means of ETICS

CHARACTERISTICS

- flexible
- durable
- good adhesion
- resistant to weather conditions
- possibility of mechanical application

SCOPE OF USE

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

SUBSTRATE PREPARATION

1. Fixing EPS-boards

ZU shows 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 wit addition of an agent for removing impurities Ceresit CT 98. In case of mycological contamination with fungi, moss and algae, the surface of the facade should be cleaned 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 should be primed with Ceresit CT 17 and left for drying for at least 2 hours.

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Before fixing EPS-boards the adhesion of the mortar should be checked by fix polystyrene boards (10x10cm) to the prepared substrate and tear them of after 4-7 days. Load capacity is sufficient when polystyrene boards are teared. While the boards are teared with the mortar, mechanical links should be used.

2. Prepared of reinforced layer

After ZU mortar is set in (after 3 days) boards should be treated 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, than wait approx. 5 minutes and mix again.

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. Prepared of reinforced layer

Ready mortar should be spread along the surface of the boards by means of a notched trowel 10 or 12 mm. The glass fibre mesh should be applied on the fresh mortar (with 10-cm overlaps) and smoothed evenly so that the glass fibre mesh should not be visible. Possibility of mechanical application. Recommended type of machine e.g. Wagner PC 15, SPG Baumaschinen PG 20 nozzle size ∅ 6. 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.

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

It is recommended to use white or graphite EPS boards which meet the requirements of external wall insulation systems (ETICS) according to EN 13163. Other details that refer to thermal insulation are described in the Instruction ITB No. 418/2007 and 447/2009.

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.

PACKAGING

Bags of 25 kg.

TECHNICAL DATA

Base:	cementitous and lime mixture with mineral fillers and modifiers
Bulk density:	approx. 1.3 kg/dm^3
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
Compression resistance:	≥ 20 N/mm^2 (CS IV) acc. EN 1015-11:2001+A1:2007
Water absorption after 24 h:	< 0.5 kg/m^2 acc ETAG 004
Adhesion acc. ETAG 004:	
to concrete	> 0.25 MPa
to EPS-boards	> 0.08 MPa
Adhesion between layers after ageing:	≥ 0.08 MPa acc. ETAG 004
Flexular resistance:	≥ 5.5 N/mm^2 acc. EN 1015-11:2001+A1:2007
Fire classification acc. EN 13501-1: B – s1, d0 in: Ceresit Ceretherm Popular B – s2, d0 in: Ceresit Ceretherm Impactum	
Assessment of natural radiation: meets the requirements of ITB Instruction No. 234/2003, p.6.2.1, according to Regulation of the Council of Ministers on 2 January 2007. & 3, p.1	
Assumed consumption:	
Fixing boards	approx. 5.0 kg/ m^2
Reinforced layer	approx. 4.0 kg/ m^2
Putty layer	approx. 1.0 kg/ m^2
Shelf life/ Storage: Up to 12 months since the production date when stored on pallets in dry cool conditions and in original undamaged packages.	

This product possesses documents of reference:

- Irish Agrement Board Certificate No. 09/0340
- European Technical Assessment (ETA) in systems:

Ceresit Ceretherm System	Popular	Impactum
ETA	08/0309	13/0086
Certificate	1488-CPR-0382/Z	1488-CPR-0407/Z
DoP	00426	00436

- National Technical Assessment in systems:

Ceresit Ceretherm System	Reno
NTA	ITB-KOT-2018/0472 wydanie 1
Certificate	020-UWB-0895/Z
NDoC	00444

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