

ZS

Adhesive mortar for EPS-boards

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

CHARACTERISTICS

- ▶ economical in use
- ▶ good adhesion
- ▶ resistant to weather conditions

SCOPE OF USE

Ceresit ZS mortar is designed to apply EPS-boards within Ceresit ETICS (External Thermal Insulation Composite Systems) with a light-wet method. ZS is part of Ceresit Ceretherm Popular. ZS mortar is used for applying to the newly erected objects as well as the buildings to be thermo renovated. The applied boards require additional fixing by means of mechanical anchors, i.e. proper expansion pins made of plastic. Ceresit ZU mortar should be used to apply fibre glass armoured layer on the EPS-boards.

SURFACE PREPARATION

ZS 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 4 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.



APPLICATION

ZS 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. 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. When ZS is set (after approx. 2 days), any unevenness of the boards should be ground with abrasive paper, then the boards should be additionally reinforced with mechanical anchors. The number of anchors should be min. 4 pcs. per m². The stripes of 2 m wide located along the building edge are exposed

to the biggest wind powers and the number of anchors should be increased in these places up to min. 8 pcs. per m². Fresh stains should be cleaned with water while hardened elements should be mechanically removed only.

PLEASE NOTE

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. 418/200 and 447/2009.

ZS 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.

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

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.

PACKAGING

Bags of 25 kg.

TECHNICAL DATA

Base:	cementitious and lime mixture with mineral fillers and modifiers
Bulk density:	approx. 1.3 kg/dm ³
Mixing ratio:	4.75-5.25 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:	approx. 5.0 kg/m ²

This product possesses:

- Hygienic Certificate of Health Secretary for the system: Ceresit Ceretherm POPULAR no. AH/B/1352/03/2009,

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

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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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