

# ZS

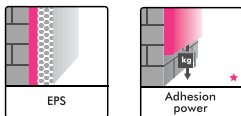


## Adhesive mortar for EPS

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

### CHARACTERISTICS

- ▶ economical in use
- ▶ good adhesion
- ▶ weather conditions resistant
- ▶ possibility of mechanical application



### SCOPE OF USE

Ceresit ZS mortar is designed to apply EPS and XPS-boards within Ceresit Ceretherm ETICS (External Thermal Insulation Composite Systems). 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, CT 85, CT 100 mortars should be used to apply fibre glass armoured layer on the EPS-boards.

### SUBSTRATE PREPARATION

ZS 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. In case of mycological contamination with fungi, moss and algae, the surface of the facade 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 with an addition of an agent for removing impurities Ceresit CT 98 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.



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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.

### 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, wait approx. 5 minutes and mix again.

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 mortar is set (after approx. 3 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 per m<sup>2</sup>. 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 per m<sup>2</sup>.

Possibility of mechanical application. Recommended type of machine e.g. Wagner PC 15, PC 830 or SPG Baumaschinen PG 20 with the gun for mortar application.

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.

The requirements that refer to thermal insulation are described in the Instruction ITB No. 418/2007 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 performance characteristics are given in the text of corresponding to the product Declaration of Performance.

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

### 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.

### PACKAGING

Bags of 25 kg.

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.

### TECHNICAL DATA

Base: cementitious and lime mixture with mineral fillers and modifiers

Bulk density: approx. 1.3 kg/dm<sup>3</sup>

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

Compression resistance: ≥ 25 N/mm<sup>2</sup> (CS IV) acc. EN 1015-11:2001+A1:2007

Adhesion acc. ETAG 004:

to concrete > 0.25 MPa

to EPS-boards > 0.08 MPa

Flexular resistance: ≥ 6.0 N/mm<sup>2</sup> 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: approx. 5.0 kg/m<sup>2</sup>

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 Agreement Board Certificate No. 09/0340

- European Technical Approval (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

- Technical Approvals in Systems:

Ceresit Ceretherm System	Popular	Reno
TA	15-6894 /2013 + Annexes	15-8077/2009 + Annexes
Certificate	ITB-0068/Z	ITB-0701/Z
DoC	00442	00444



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