CT 80

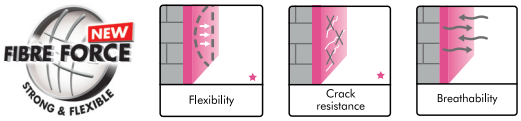
UNIVERSAL

Adhesive and Reinforcing mortar for EPS/XPS/MW

For fixing Expanded Polystyrene boards, XPS and mineral wool boards as well as for applying a thin reinforced layer for thermal insulation of buildings by means of ETICS

CHARACTERISTICS

- universal, 4 in 1
- flexible and durable
- strengthened with unique combination of fibres
- vapour permeable and with good adhesion
- resistant to weather conditions
- possibility of machine application



SCOPE OF USE

Ceresit CT 80 mortar is designed as an element of external thermal insulation composite Ceresit Ceretherm system of the building walls, using EPS, XPS or facade mineral wool. CT 80 mortar is used as adhesive for EPS, XPS or mineral wool and for applying the reinforcing protection layer on insulation of newly constructed objects as well as older buildings to be thermo-renovated. Ceresit CT 80 thanks to the use of specially selected combination of fibres (Fibre Force Technology), strengthens the resistance of insulation system to damage, cracks and scratches.

SUBSTRATE PREPARATION

1. Fixing thermal insulation boards

CT 80 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 and substrate levelled. Steam-tight paint coatings and the coats with low adhesion to the substrate should be completely removed with e.g. jet washing devices. In case of mycological contamination with fungi, moss and algae, the surface of the facade should be cleaned 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 with additive of Ceresit CT 98 cleaning agent 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. Adhesion of CT 80 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 cubes is teared, otherwise additional mechanical fasteners must be used.

CERESIT C_CT80_TDS_1_0819

2. Reinforced layer application.

When CT 80 is bounded (after approx. 3 days), any unevenness of the boards should be grounded with abrasive paper, then any loose particles of insulation materials carefully brushed whereas the boards additionally reinforced with mechanical fasteners. If EPS boards for over two weeks were not covered by base coat, it's quality should be assessed. Yellowed and dusty surface requires grinding with sandpaper.

APPLICATION

CT 80 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 c.a. 5minutes and should be shortly stirred again.

1. Fixing thermal insulation boards EPS, XPS.

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. 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 notched trowel (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. Reinforced layer application EPS, XPS.
Ready mortar should be spread along the surface of the boards by means of a notched trowel with the size of the teeth 10-12 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.

3. Fixing mineral wool boards.
Before application of adhesive mortar CT 80 it is necessary to apply thin coat of CT 80 so called 'priming' of surface. 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. Proper applied mortar after board been pressed, should cover min. 40 % of surface. In case of usage of lamella boards the mortar should be applied by mean of notched trowel (notched: 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 CT 80 is bounded (after approx. 3 days), the boards should be additionally fixed with mechanical fasteners with steel core.

4. Reinforcing layer application.
Before proper base coat layer application it is necessary to do so called 'priming' layer by applying of thin layer, c.a. 1 mm, of CT 80 on mineral wool surface. After drying time, c.a 24 hours, proper reinforced layer should be applied. The ready mortar should be spread along surface of the boards using notched trowel, 10 or 12 mm notched. 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. Fresh stains should be cleaned with water while hardened elements should be mechanically removed only.

PLEASE NOTE

The reinforced layer should not be applied on highly sunny surfaces and the applied layer should be protected against rain. It is recommended to use scaffolding protection. Application should be performed in dry conditions with the substrate and ambient temperature from +5 °C to +25 °C. CT 80 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.

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.

OTHER INFORMATION

The requirements which should be fulfilled by EPS boards (white and grey), XPS and mineral wool boards are corresponding to requirements of ETICS acc. EN 13163, EN 13162, EN 13164. Details that refer to thermal insulation are described in the Instruction ITB No. 418/2007 and 447/2009.

PACKAGING

Bags of 25 kg.

TECHNICAL DATA

Base:	cement mixture with mineral fillers, and modifiers
Bulk density:	approx. 1.4 kg/dm^3
Mixing ratio:	5.0÷5.5 l of water per 25 kg
Temperature of application:	from +5 °C to +25 °C
Pot life:	approx. 90 minutes
Compression resistance:	≥ 12 N/mm^2 (CS IV) acc EN 1015-11:2001+A1:2007
Flexular resistance:	≥ 4.0 N/mm^2 acc EN 1015-11:2001+A1:2007
Adhesion acc. ETAG 004:	
to concrete	> 0.25 MPa
to EPS	> 0.08 MPa
to XPS	> 0.08 MPa
to mineral wool	> 0.08 MPa
Water absorption after 24 h:	< 0.5 kg/m^2 acc. ETAG 004
Adhesion between layers after ageing:	≥ 0.08 MPa acc ETAG 004
Fire classification acc. EN 13501-1:	
B – s1, d0 in system:	
Ceresit Ceretherm Universal EPS	
B-s2, d0 in system:	
Ceresit Ceretherm Universal XPS, Impactum	
A2-s1, d0 in system:	
Ceresit Ceretherm Universal MW	
Assumed consumption:	
EPS, XPS:	
Fixing boards:	approx. 5.0 kg/m^2
Reinforced layer:	approx. 4.0 kg/m^2
Smoothing layer:	approx. 1.0 kg/m^2
Mineral wool:	
Fixing boards:	approx. 5.0 kg/m^2
'Priming' boards:	approx. 1.0 kg/m^2
Reinforced layer:	approx. 4.0 kg/m^2
Smoothing 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:	
- European Technical Assessment (ETA) in systems:	

Ceresit Ceretherm System	Universal EPS	Universal XPS	Universal MW	Impactum
ETA	13/0535	13/0807	14/0127	13/0086
Certificate	1488-CPR-0457/Z	1488-CPR-0456/Z	1488-CPR-0362/Z	1488-CPR-0407/Z
DoP	00433	00434	00435	00436

Henkel CEE
Erdbergstrasse 29
1030 Vienna
www.ceresit.com

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