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EVOLUTION IN ETICS





# **Express thermal insulation**

**Ceresit CT 84 Express** – the innovative adhesive for foam polystyrene

**Ceresit CT 84 Express is ready-to-use polyurethane adhesive for foam polystyrene.** It is applied with a convenient gun, thus fixing the panels is fast, efficient and clean. Moreover, Ceresit CT 84 binds quickly and is resistant to humidity and low temperatures. The reinforced layer may be overlayed only 2 hours after placing the foam polystyrene. The result? Faster work with thermal insulation, lower effort, and extended time for other jobs. Any more orders? Right away!





### **Express thermal insulation!**



- easy dosing and convenient to use
- lets work progress quickly
- extremely efficient
- high adhesion to mineral substrates and foam polystyrene
- very good insulation properties

- lets work continue even in low temperatures and high humidity
- Iow-pressure, stable dimensions
- water-resistant
- **CFC** free

Your benefits:

Cost-saving in labour + cost-saving in time + cost-saving in costs of transport and storage + high capacity = lower costs of application of the whole thermal insulation system!

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### Advantages of Ceresit CT 84 Express

#### Easy dosing, convenient to use and extremely efficient

- does not require effort in transport and preparation
- precise dosing allows accurate application of adhesive
- negligible weight and plastic consistency increase comfort of work
- weight of the complete package including the application gun: only ca. 1 kg
- extremely efficient: the 750 ml package sufficient for about 6 m<sup>2</sup> of foam polystyrene (a 25 kg bag of typical mortar adhesive only does 5 m<sup>2</sup>)

#### Superfast – lets work progress quickly

- adhesive hardens after ca. 20-30 minutes from application
- after ca. 2 hours, the fixed foam polystyrene panels may be ground, fixed with anchors, and then the reinforced layer may be overlayed using Ceresit CT 87 "2 in 1" mortar
- during the same day it is possible to apply adhesive, insert anchors and place the reinforced layer, thus reducing the time for insulation work by as much as 5 days

#### High adhesion to mineral substrates and foam polystyrene

- adhesion to mineral substrates, wood, metals and plastics is better compared to cement mortars
- binding is definitely faster

#### Very good insulation properties

- very low thermal conductivity index value  $\lambda = 0.035$  W/mK
- the adhesive layer under foam polystyrene panels additionally improves the effect of heat protection for the building
- no risk of any occurrence of thermal bridges due to penetration of adhesive between insulations panels

#### Enables working in low temperatures and high humidity

- wide range of application conditions:
  - temperature of use:  $0^{\circ}C$  to  $+40^{\circ}C$
  - air humidity: even above 90%
  - high humidity does not slow down the process of hardening (it quickens the process)
  - at the temperature of  $0^{\circ}$ C, curing time is only ca. 3 hours
  - at +40°C, complete fixing is achieved as fast as ca. 10 minutes

#### Low-pressure stable dimensions

- expansion of adhesive is very fast and its voluminous effect is very limited
- after fixing the panels to the facade, adhesive does not expand any more (deformations <1 mm)

#### Water-resistant

- adhesive has structure with closed pores and includes water-repellent agents
- absorbability below 1% vol.
- condensation of vapour within the adhesive layer does not weaken the connection, unlike with regular cement mortars

#### CFC – free

• Ecological recipe prevents further damage to the ozone hole and greenhouse effects







### Comparison of insulation time – between two systems:

### **Ceresit VWS Express – advantages:**

**Express thermal insulation** – shortening application time of the thermal insulation system by as many as 5 days

Lower cost of 1 m<sup>2</sup> of the system with the innovative adhesive Ceresit CT 84 Express and the Ceresit CT 87 "2 in 1" white adhesive – armouring mortar – lower costs of materials, labour, renting scaffolding and transport

Better durability of the whole system of thermal insulation with higher resistance to:

- mechanical damages (impact, perforation)
- formation of scratches and micro-cracks from high contents of organic modifiers and fibres in Ceresit CT 87 "2 in 1"
- difficult weather conditions (sudden changes and high amplitudes of temperature) by reducing absorbability of the Ceresit CT 87 "2 in 1" mortar by 50% and reduction of absorbability of the whole system as compared with standard requirements by 65%
- biological contamination (fungus, algae) with minimised absorbability of Ceresit CT 87 "2 in 1", optimum properties of Ceresit CT 72, CT 73 silicate plasters
- soiling with minimised absorbability of Ceresit CT 87 "2 in 1" and the appropriate selection of the final plaster(silicone Ceresit CT 74, CT 75 plasters are especially recommended)
- **Full compliance with the highest standards of the European Union** it meets the ETAG 004 requirements (European Technical Approval Guidelines for thermal insulation systems (ETICS))

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## **Ceresit VWS Express**

1. Fixing	<ul> <li>Polyurethane adhesive for foam polystyrene boards Ceresit CT 84 Express</li> <li>Plastic anchors Ceresit CT 330 or CT 335 with steel core</li> <li>Number of fasteners and their arrangement should be determined by an architect, based on the substrate analysis and load calculations</li> </ul>
2. Insulation material	<ul> <li>Styrofoam boards Ceresit CT 315; EPS-EN13163-CS(10)70 or EPS-EN13163-CS(10)80</li> <li>Thickness up to 25 cm</li> <li>With a flat or shaped and face profiled butting</li> </ul>
3. Reinforced layer	<ul> <li>Glass fibre fabric Ceresit CT 325 with a density at least 145 g/m2</li> <li>White adhesive-armouring mortar Ceresit CT 87 "2 in 1"</li> </ul>
4. Priming	– Not applicable
5. Plaster	<ul> <li>Mineral plasters (coloured or for painting): Ceresit CT 137 "stone"; Ceresit CT 35 "rustic"; Ceresit CT 36 "mix"</li> <li>Acrylic plasters: Ceresit CT 60 "stone"; Ceresit CT 63 "rustic"; Ceresit CT 64 "rustic"</li> <li>Silicate plasters: Ceresit CT 72 "stone"; Ceresit CT 73 "rustic"</li> <li>Silicone plasters: Ceresit CT 74 "stone"; Ceresit CT 75 "rustic"</li> <li>Silicate-silicone plasters: Ceresit CT 174 "stone"; Ceresit CT 175 "rustic"</li> </ul>
6. Facade paint	– Acrylic paint Ceresit CT 42, CT 44 – Silicone paint Ceresit CT 48 – Silicate paint Ceresit CT 54
7. Supplementary elements	<ul> <li>Sections CT 340 (for use on pedestals, corners and windows); angles and pins for fixing foam polystyrene in critical places</li> </ul>
8. Required atmospheric conditions	– Temperature in the range from +5°C to +25°C – Air humidity below 80%
9. Other information	<ul> <li>Extremaly fast application and durable solution of the highest quality</li> <li>For insulating newly built and renovated thermally buildings</li> <li>For facilities of residential, general and industrial building</li> <li>The maximum height of the application specified by fire protection regulations (in Poland up to 25 m)</li> </ul>

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### Application step by step



Shake Ceresit CT 84 Express adhesive container vigorously about 20 times in order to stir the contents



Remove the valve protecting cover, set up the can with valve facing upwards and screw on the application gun



Apply Ceresit CT 84 Express directly from the gun on the foam polystyrene panel, on the perimeter of the panel, with about 2 cm distance from the edge



Then, apply one strip across the centre of the panel, parallel to its longer sides



Directly after applying adhesive, place the panel on the wall and press with slight force using a long float



Placement of the fixed foam polystyrene panels may be adjusted within 20 minutes of their fixing, with the use of a long float



In order to fix a Ceresit CT 340 angle, remove the protection paper from the adhesive strip on its larger foot



Decide on the place for fixing the angle (e.g. with a spirit level) and press the angle to the substrate so that the foam polystyrene panel may be placed on the smaller foot

#### Fixing the panels on walls

Fixing the panels above openings





After deciding on location of the panel, insert a pin into one of the holes in the Ceresit CT 340 angle to stabilise the location of the panel



After setting the vertical and horizontal position of the panel, press the pin into the hole in the foot to stabilise the location Fixing panels on ceiling



Press the Ceresit CT 340 angle to the foundation so that the smaller foot adheres to the face surface of the panel



Put the next panel shall be put on the prominent part of the pin so that its edges are facing the edges of the panels installed



Glue strips of foam polystyrene prepared from panels with the appropriate thickness to vertical reveals, and then to the horizontal reveal, with additional assembly items Ceresit CT 340



Fill the gaps between edges of panels in with VWS Ceresit CT 310 foam. Excess adhesive CT 84 Express or CT 310 foam after curing may be cut away with a knife or ground with a rasp

#### Cleaning and dismantling the gun



If the open box is to be reused clean the socket of its valve with a stream of Ceresit PU Cleaner. Hardened dirt is very difficult to remove



Before a longer break in work screwed the Ceresit PU Cleaner container to the gun; press the trigger of the gun to carefully rinse the interior

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#### Thermal insulation for reveals



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