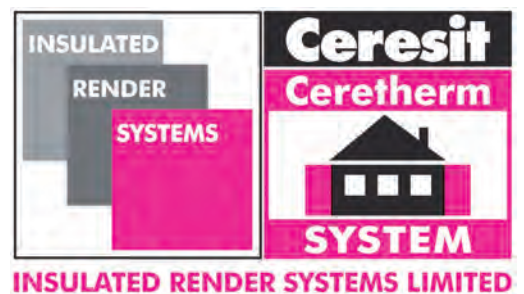


Ceresit



Insulated Render Systems and Finishes **Ceresit-Ceretherm SYSTEM**



Henkel

Quality for Professionals

Exclusive UK & Ireland Distributor Partner for the Ceresit-Ceretherm System from Henkel

Insulated Render Systems from Henkel



This Ceresit-Ceretherm brochure outlines the standard insulated render systems currently available, Phenolic, Mineral Wool and Expanded Polystyrene (EPS).

The Ceresit-Ceretherm base coats, alkaline resistant mesh, primers, “top-coat” renders and paints are also suitable for direct application onto approved cement carrier board, concrete, brick & block masonry and existing render. The system is also ideally suited for use on Insulated Concrete Formwork (ICF) construction.

For further, specific information on suitable substrates, backgrounds and surface preparation, please contact Facade Systems or Insulated Render Systems Limited.



Ceresit



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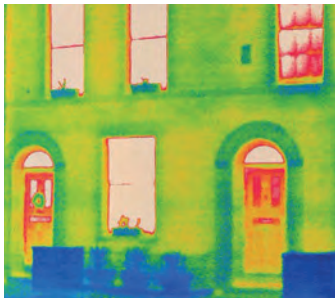
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Insulated Facade Systems from Henkel

The System Benefits



Why Henkel Ceresit-Ceretherm

Whether new build or refurbishment, the Ceresit-Ceretherm external insulated facade systems have been designed to thermally insulate buildings, irrespective of their size, location, technical requirements and age. The systems also have numerous other advantages including helping to eliminate thermal bridging.



Weather Resistant Systems

All Ceresit-Ceretherm externally insulated facade systems are seamless and totally weather resistant but they will freely permit the transmission of moisture vapour from within the building fabric.



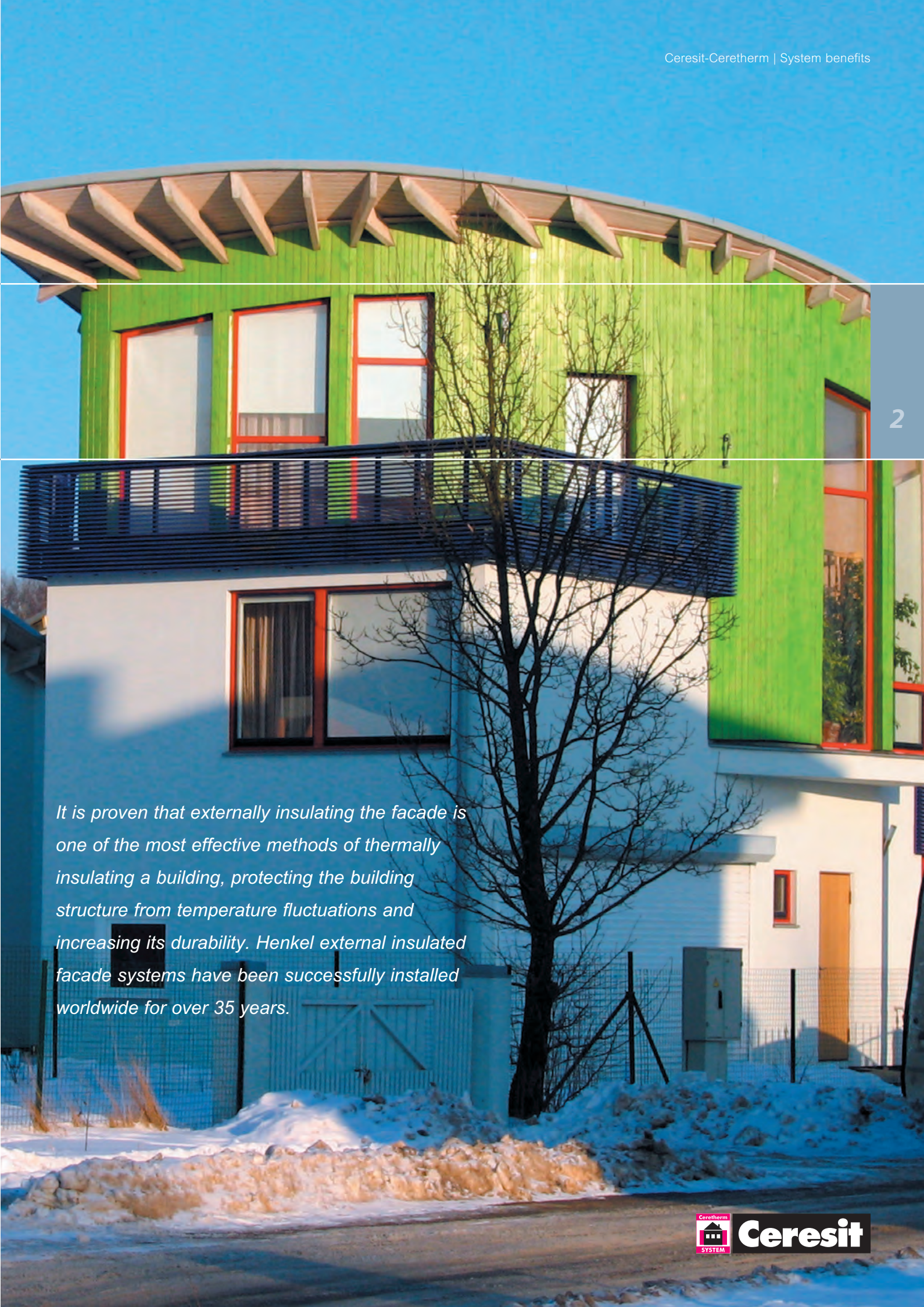
Energy Saving Solutions

It has long been known that excessive emissions of CO₂ produced by burning fossil fuels contributes to the greenhouse effect leading to global warming. Research has shown that the heating and cooling of buildings releases as much as 30-35% of global carbon dioxide emissions. Ceresit EIF systems reduce the amount of energy used to heat and cool buildings, therefore contributing to the reduction in the amount of harmful pollutants released into the atmosphere.



Unlimited Seamless facade design

The Ceresit-Ceretherm system offers a large portfolio of renders and paint finishes, all with different textures, grain sizes and an extensive range of colours providing unlimited design options.



It is proven that externally insulating the facade is one of the most effective methods of thermally insulating a building, protecting the building structure from temperature fluctuations and increasing its durability. Henkel external insulated facade systems have been successfully installed worldwide for over 35 years.

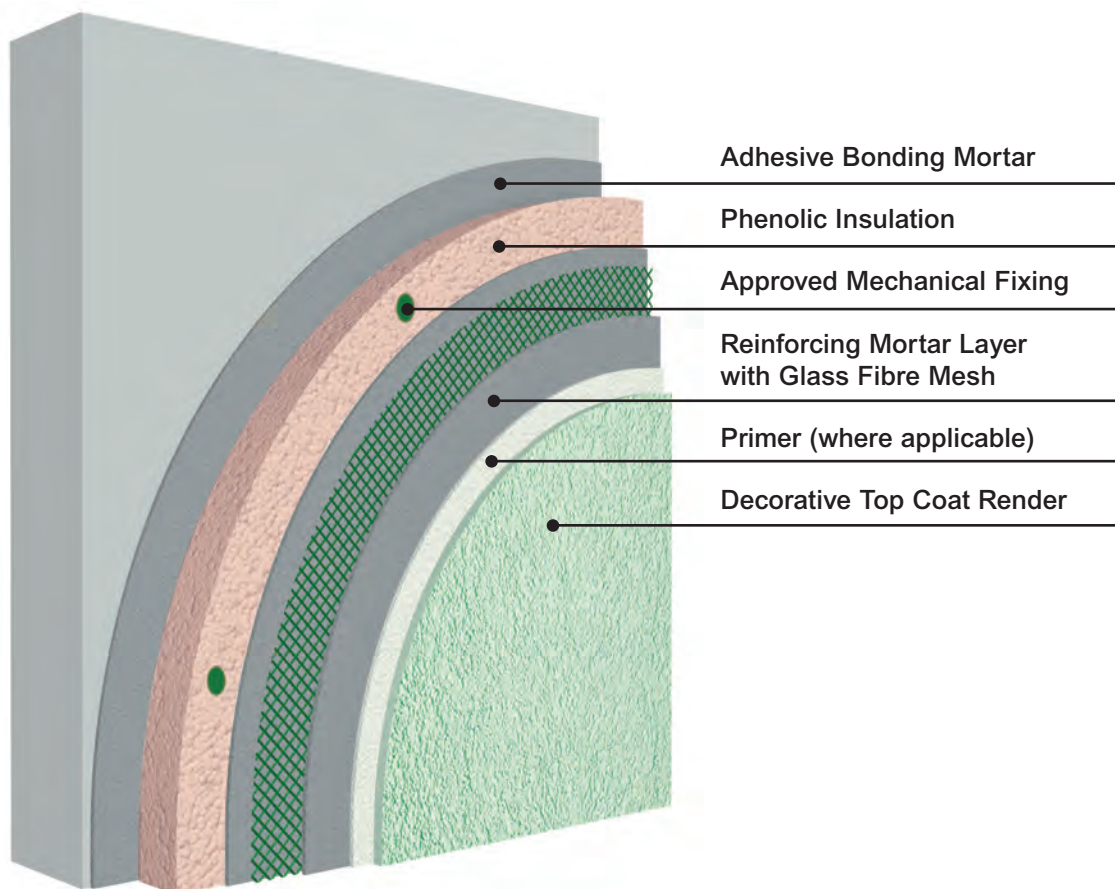
Ceresit-Ceretherm

Phenolic External Insulated Facade System

3



Ceresit-Ceretherm phenolic external insulated facade systems are well suited to both new build and refurbishment applications, especially where a thinner insulating material is required.



Ceresit-Ceretherm phenolic external insulated facade system ;

with excellent fire performance, easy to handle and install with the benefits of a thinner insulation

Scope of use	<ul style="list-style-type: none"> • Suitable for use on all facade substrates • New build and refurbishment • Well suited to refurbishment applications where a thinner insulation material is required
Properties	<ul style="list-style-type: none"> • Premium performance rigid phenolic insulation with thermal conductivity as low as 0.021 W/mK • Excellent fire performance (class 0/low risk fire rating) and cfc/hcfc-free with zero ozone depletion potential (odp)
Appearance	<ul style="list-style-type: none"> • Can be finished with a choice of silicone, acrylic, mosaic or mineral renders. • Resistant to microbiological contamination (mould and algae) • Moisture vapour permeable • Wide range of standard colour renders and paint finishes • Non standard colours can be produced on request • Winter version available for lower working temperatures • Special non-priming version of the reinforcing mortar available for faster application of the system
Application	<ul style="list-style-type: none"> • System elements easy to prepare or ready to use • Wide range of supplementary materials and components • Numerous detail solutions available

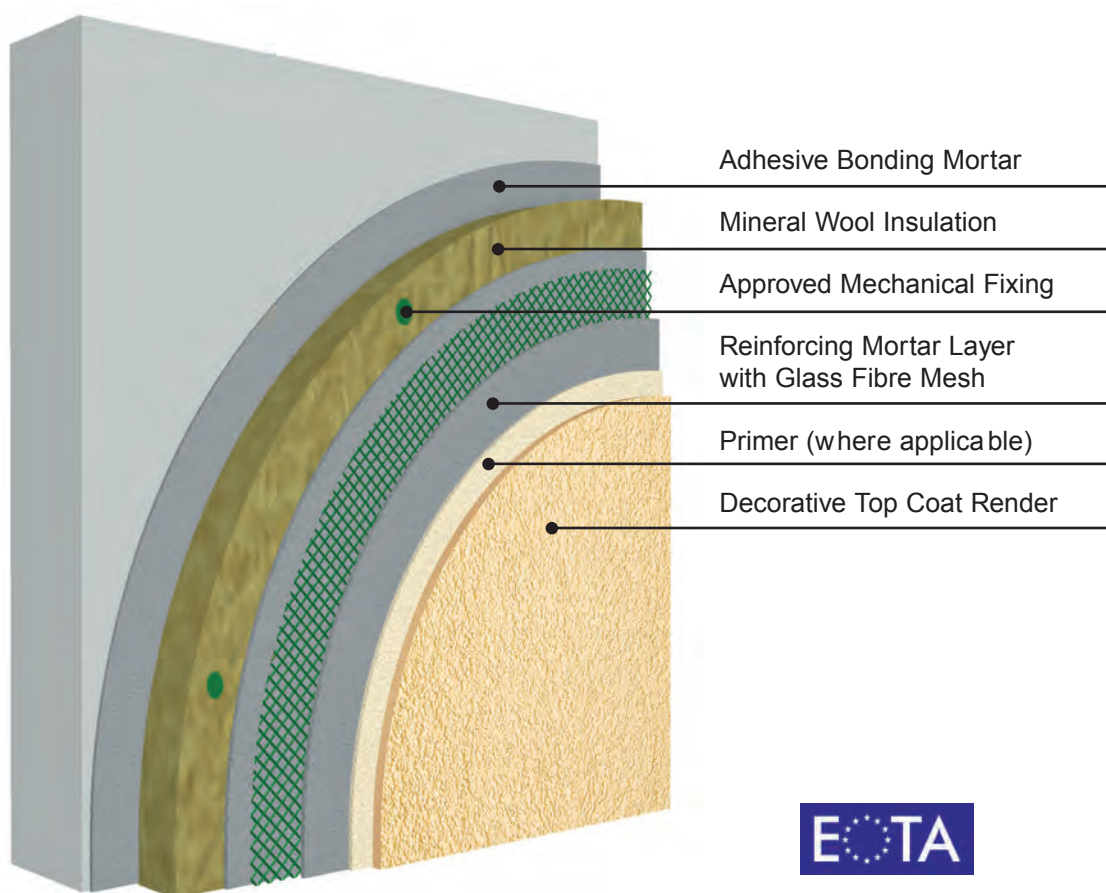
Ceresit-Ceretherm

Mineral Wool External Insulated Render System

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The Ceresit-Ceretherm mineral wool external insulated facade system is extremely durable with excellent fire resistance and acoustic performance.



Ceresit-Ceretherm mineral wool insulated facade systems;

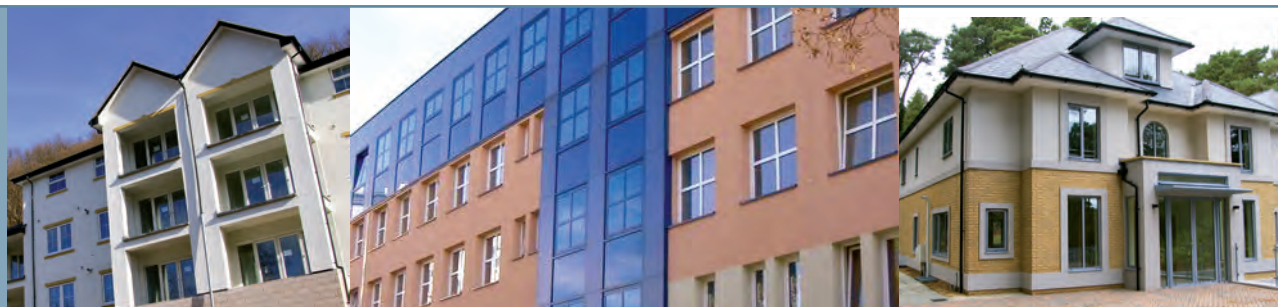
are extremely durable with excellent fire resistance and acoustic performance

Scope of use	<ul style="list-style-type: none"> • Suitable for use on all facade substrates • For buildings with strict fire requirements • Where good acoustic performance is required.
Properties	<ul style="list-style-type: none"> • High density - high strength rock mineral wool slab • Excellent fire resistant properties. Fire classification A1 or B1 according to EN13501- (Depending on the type of render used) • Good thermal performance with thermal conductivity as low as 0.037 W/mK • Excellent acoustic performance
Appearance	<ul style="list-style-type: none"> • Can be finished with silicone, mineral or mosaic render • Especially resistant to microbiological contamination (mould or algae) • Extremely moisture vapour permeable (depending on render applied) • Wide range of standard colour render and paint finishes • Non standard colours can be produced on request • Winter version available for lower working temperatures • Special non priming version of the reinforcing mortar available for faster application of the system
Application	<ul style="list-style-type: none"> • System elements easy to prepare or ready to use • Wide range of supplementary materials and components • Numerous detail solutions available

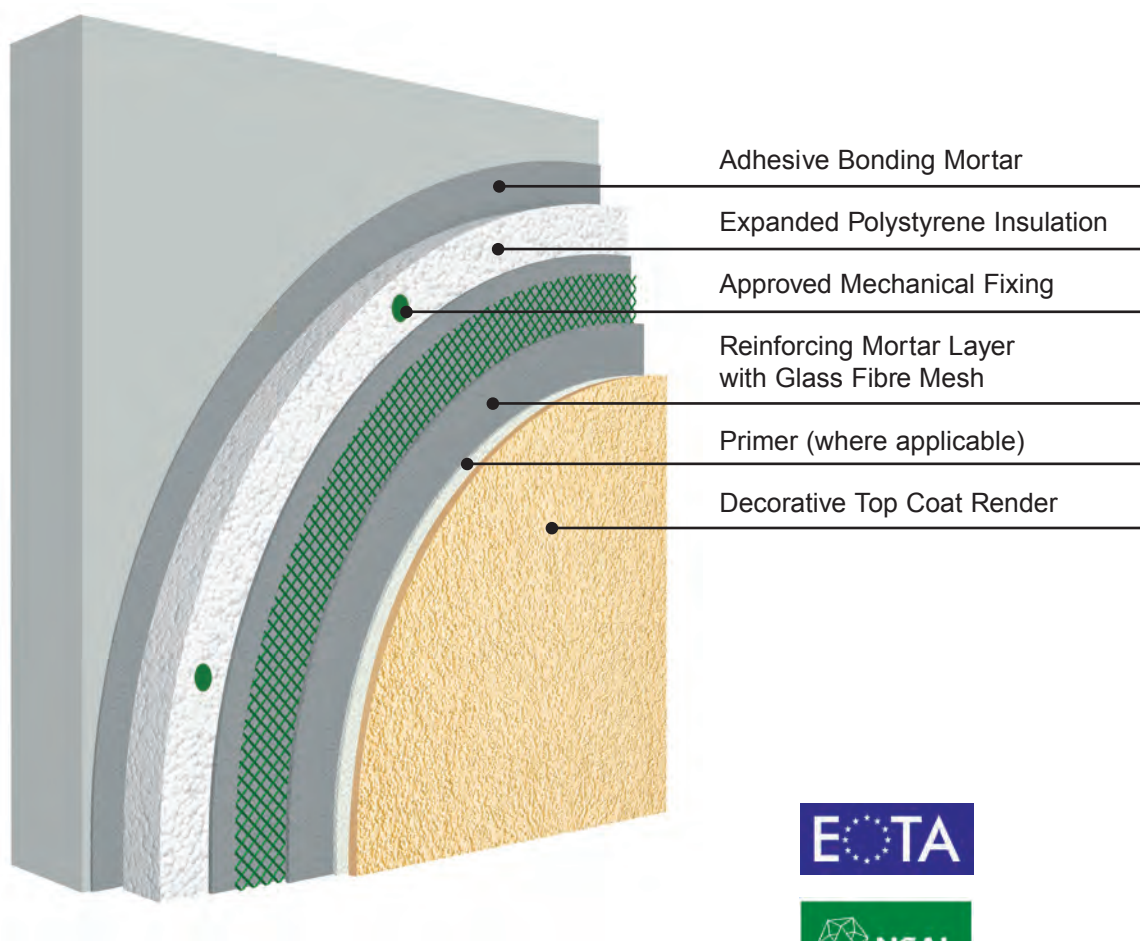
Ceresit-Ceretherm

Expanded Polystyrene (EPS) External Insulated Render System

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Ceresit-Ceretherm expanded polystyrene (EPS) external insulated render system is extremely durable economical and lightweight. This system is well suited where weight is a key deciding factor to the choice of the system.





Ceresit-Ceretherm expanded polystyrene (EPS) insulated render system

is durable, economical and light weight.

Scope of use	<ul style="list-style-type: none"> • Suitable for use on all facade substrates • New build and refurbishment • Lightweight system-suitable where weight is a design consideration such as refurbishment • Very economical
Properties	<ul style="list-style-type: none"> • Tried and tested durable system • Good performance with thermal conductivity as low as 0.030 W/m² (Graphite Enhanced) • Fire classification: B1 according to EN13501-1 (non fire spreading)
Appearance	<ul style="list-style-type: none"> • Can be finished with a choice of silicone, acrylic, mineral or mosaic renders • Resistant to microbiological contamination (mould and algae) • Highly moisture vapour permeable • Wide range of standard colour renders and paint finishes • Non standard colours can be produced on request • Winter version available for lower working temperatures • Special non-priming versions of the reinforcing mortar available for faster application of the system
Application	<ul style="list-style-type: none"> • System elements easy to prepare or ready to use • Wide range of supplementary materials and components • Numerous detail solutions available

Ceresit-Ceretherm

Durable, high performance, weather resistant renders, paints and decorative finishes



Apart from improving the buildings thermal insulation properties, Ceresit renders and paint finishes offer a great variety of patterns and colours - Based on 4 basic "Colours of Nature" lines, sand, earth, forest and water allowing sufficient freedom of choice from a total of 211 standard colours. Furthermore we are able to fulfil individual orders for special and non standard colours. Ceresit renders and paint finishes offer long lasting durability, this durability results from their flexibility, high moisture vapour permeability and resistance to biological contamination. A combination of highly resistant binders, fillers and the most durable pigments and modifying agents lends Ceresit renders, paints and decorative finishes a durability that will last for decades to come.



Ceresit Silicone CT 74 2.5mm
"Stone Texture"

Silicone Renders

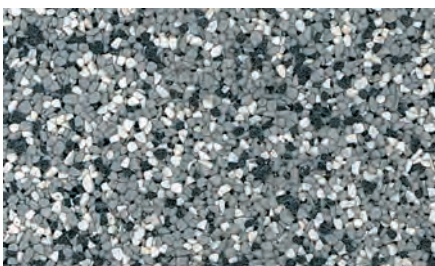
The main advantages of Ceresit silicone renders are their excellent moisture vapour permeability and high hydrophobicity (very low water absorption). Silicone renders are extremely UV resistant, ensuring long colour stability. When the plaster gets wet, water droplets form on the surface. This assures effective surface protection and reduces the effects of atmosphere pollutants to the facade surface. With this exceptional performance the facade remains protected from biological contamination and will look good for many years.



Ceresit CT 60 1.5mm Acrylic Render
"Stone Texture"

Acrylic Renders

Ceresit acrylic renders generate a hydrophobic skin which is permeable to moisture vapour. The render structure is closed with very low, water absorption which ensures effective protection against climatic influences. At the same time it considerably limits the extent of atmospheric deposits on the facade. This highly flexible render demonstrates good adhesion to the surface to which its applied providing effective resistance to mechanical stress.



Ceresit CT 77 Mosaic Renders

Mosaic Finishes

Ceresit mosaic finishes are ready-to-use acrylic renders available in 48 standard colours. Made from coloured quartz chippings or natural crushed marble aggregates, they are highly vapour permeable and hard wearing. Ceresit mosaic renders are well suited to areas that are subject to potential impact such as stairwells, entrances and corridors. On the exterior of the building facade they are recommended for surfaces that tend to become dirty, such as plinths, windows and door reveals.

Ceresit-Ceretherm External Insulated Render Systems

Standard Fixing Patterns



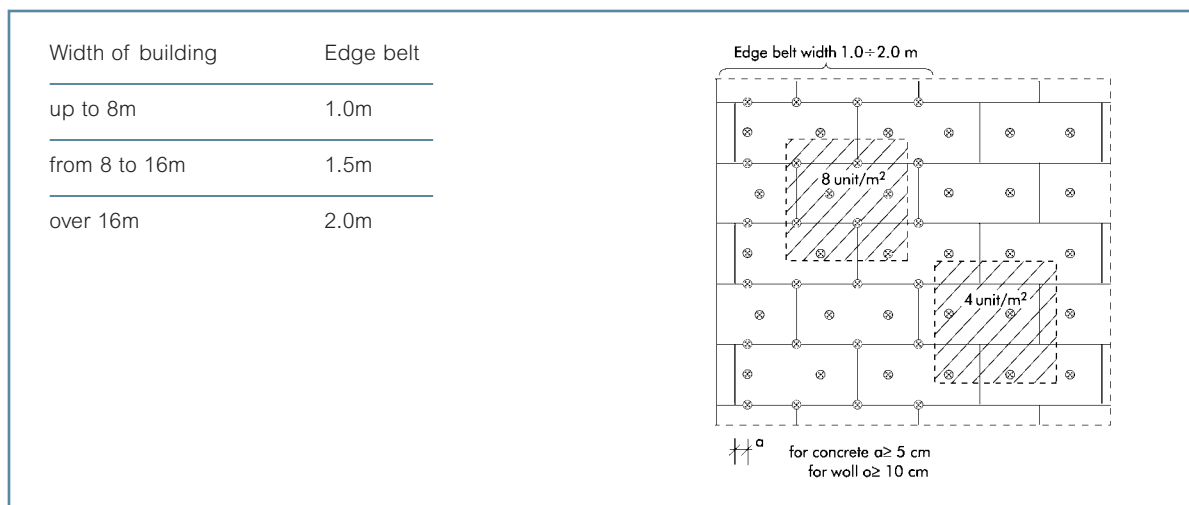
Additional standard mechanical fixing pattern for use with phenolic & mineral wool insulation

Width of building	Edge belt
up to 8m	1.0m
from 8 to 16m	1.5m
over 16m	2.0m

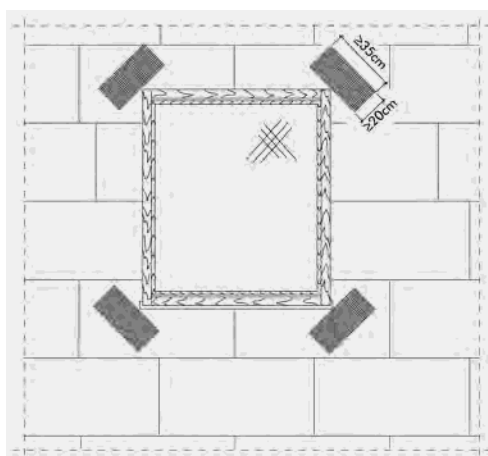
Additional standard mechanical fixing pattern for use with lamella insulation

Width of building	Edge belt
up to 8m	1.0m
from 8 to 16m	1.5m
over 16m	2.0m

Additional standard mechanical fixing layout for use with expanded polystyrene insulation



Additional reinforcement strips (stress patches) at the edges of window frames & other openings



Ceresit-Ceretherm

Installation of the System

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Preparation

Prior to installing the system it is necessary to check the quality of the substrate. It must be sound, load bearing and free from structural defects. Any substances such as grease, dust, surface treatments or contaminants should be completely removed by suitable methods so the lifetime performance of the system will not be impaired.



All areas of algae and moss should be completely removed with a steel brush and saturated in a solution of **Ceresit CT 99**. Allow to dry prior to the application of the system.



All loose and hollow render should be removed back to a sound edge and made good with **Ceresit CR 61**.



Prior to application of the system, any unevenness should be levelled out using **Ceresit CR61**.



Priming of Absorbent Substrate

Substrates with high absorbency levels such as aerated concrete blocks should be primed with **Ceresit CT 17** and left to dry before proceeding with the application of the system.



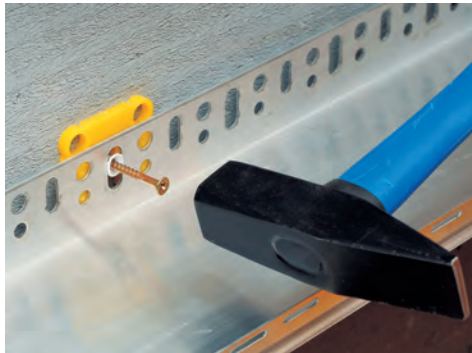
Installing the Base Profile

Install the **Ceresit CT 340** base profile and fix at 300mm centers using approved mechanical fixings.

Ceresit-Ceretherm

Installation of the System

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On uneven substrates, use spacer washers to avoid deformation of the profile. Ensure the base profile is installed true and level.



Installing the Base Profile to Building Corners

Care should be taken when installing base profiles to external and internal corners.



It is recommended to cut this section to size without breaking its external vertical edge. In this way the continuity of the line is maintained and the bottom edge of the facade is protected. All butt joints between base profiles to be connected using **Ceresit CT 340** connectors.

Sealing the system

NOTE: Before commencing the installation of the **Ceresit** insulation boards apply **Ceresit CT 300 EM** sealing tape where the system abuts other building elements.



Installing and Fixing the Insulation Boards

The **Ceresit** adhesive bonding mortar should be mixed in a suitable bucket or container with clean water by using a suitable drill and paddle mixer.



Initial Priming of Mineral Wool Insulation

A thin layer (scratch-coat) of the ready mixed **Ceresit** bonding adhesive should be trowelled into the surface of the board prior to the application of the adhesive mortar layer in order to increase the adhesion between the mineral wool and the bonding layers.

Ceresit-Ceretherm

Installation of the System

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Fixing the Insulation

Option 1 - Combed method

On smooth substrates apply the **Ceresit** adhesive mortar with a 10x12 notched trowel ensuring the adhesive has covered the surface of the insulation.



Option 2 - Ribbon & Dab method

Apply a 3-4cm strip of **Ceresit** adhesive mortar along the edges of the board and three 8cm dabs placed at equal distances in the centre of the board. This method of application is especially suited to uneven substrates.



After applying the adhesive mortar. Fix the board to the wall and press home firmly, starting from the bottom. The boards should be tightly butt jointed and applied in a brick bond pattern.



The bonded boards should be pressed into the substrate by the use of a long steel trowel or straight edge to ensure they are level and to allow a good distribution and flow of the adhesive under the board.



Any excess mortar should be removed from the contours or end faces of the board.



Filling Gaps in the Insulation

Gaps of more than 2mm wide should be filled by using strips of insulation. If required it is also permitted to use low expanding polyurethane foam.

Ceresit-Ceretherm

Installation of the System

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Smoothing the Surface of the Insulation Boards

As soon as the adhesive mortar has set, any protruding edges at building corners should be cut away using a straight edge and suitable saw.



Rasp board edges to ensure complete alignment and eliminate any unevenness / lipping.



Additional Mechanical Fixings

Each application will have its own unique fixing requirement and therefore will require individual testing. Drill through the insulation board into the substrate using a suitable diameter drill bit.



Insert the specified **Ceresit** fixing and hammer or screw home as applicable. (See standard fixing patterns shown on page 11 and 12)



Beads, Trims and Expansion

Apply reveal beads where the insulation abuts the door and window frames to create a watertight seal and an aesthetically pleasing connection.



Door, window and building corners are protected by the use of wing mesh bead embedded in reinforcing mortar prior to the application of the reinforcing layer.

Ceresit-Ceretherm

Installation of the System

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An expansion joint profile ensures that buildings movement is carried through the system in a controlled manner. This is particularly important where movement joints exist in the underlaying building fabric.



Additional Reinforcement at Window and Door Openings

All window and door openings need additional reinforcement at the corners. Additional reinforcement strips not smaller than 350mm x 250mm and shall be installed at an oblique angle to the opening.



Applying the Reinforcing Layer with Mesh

Apply the **Ceresit** reinforcing mortar by the use of a steel float or 10x12 notched trowel starting from the top of the building in a vertical belt width approx. 1.1m



Apply the **Ceresit CT 325** glass fibre reinforcement into the reinforcing mortar and overlap all joints by 100mm, where necessary return mesh around corners and reveals.



The reinforcing mesh should then be completely covered and embedded into the top third of the reinforcing mortar. The mortar should be left flat and level to accept the application of the finishing renders.

Note. Additional reinforcing mesh layers should be installed at ground level where increased durability and impact resistance of the system is required, particularly where placement continues below ground.



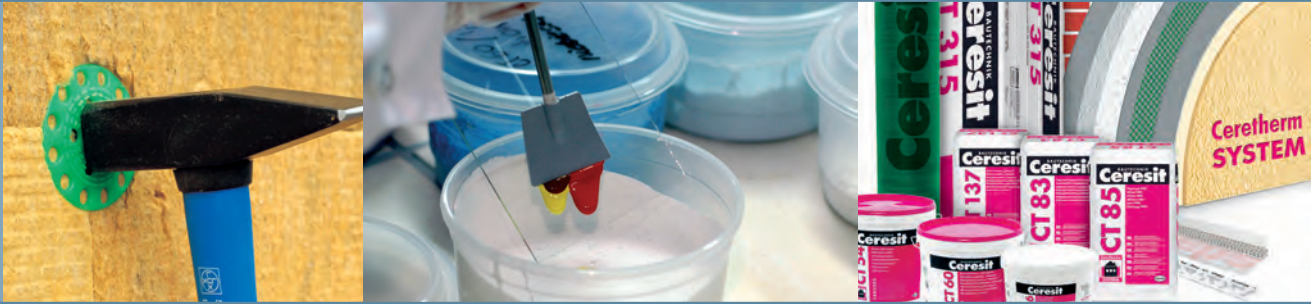
Application of Facade Renders

Where required, apply a coat of **Ceresit CT 16** primer in an appropriate color shade to that of the finishing decorative render.

Ceresit-Ceretherm

Installation of the System

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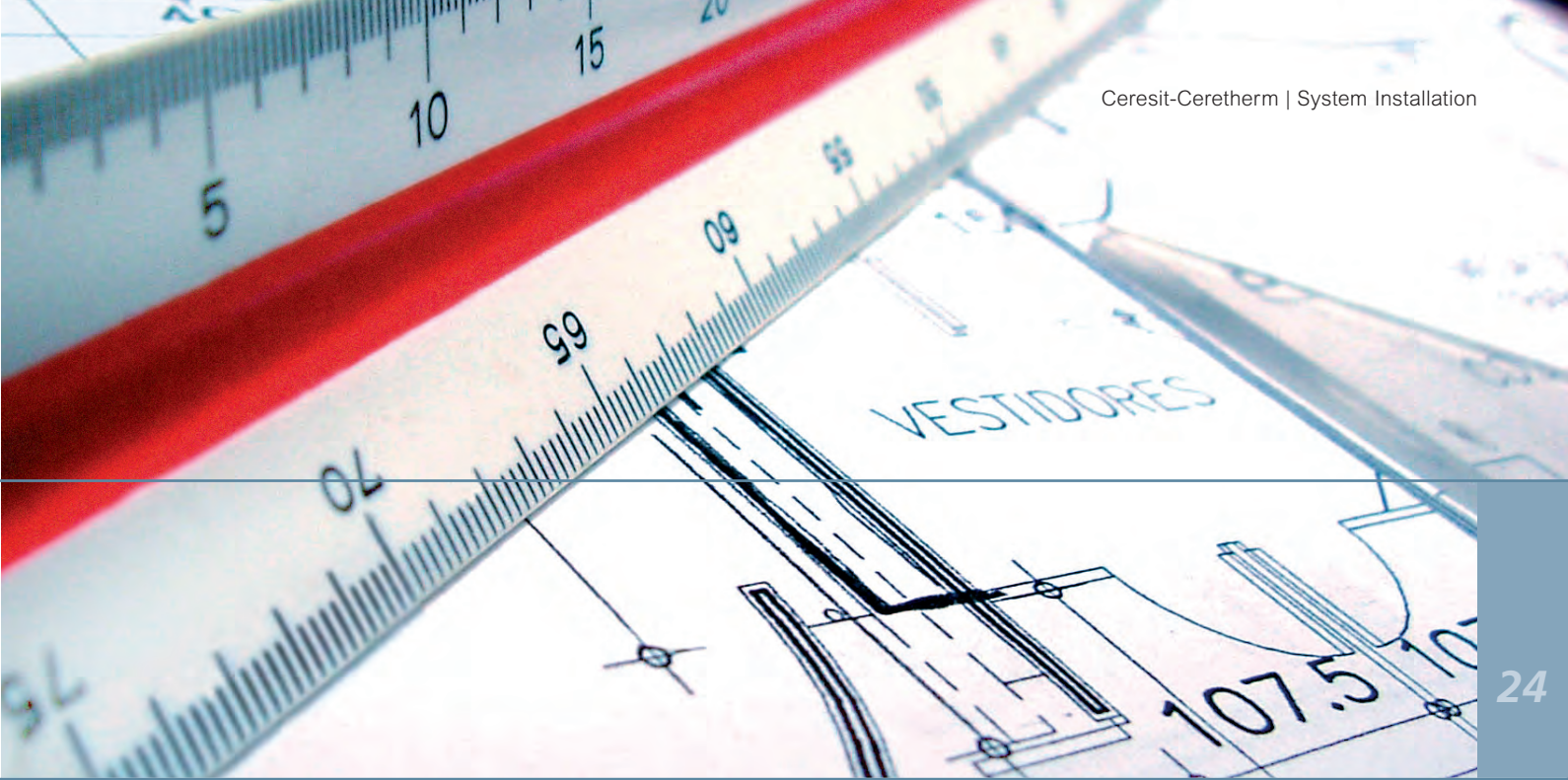
All **Ceresit** renders are ready to use and just require pre-stirring prior to application.



The thin coat renders are applied to the surface by the use of a steel float.



The applied render can now be finished to the required texture by moving the float in a circular, horizontal or vertical movement to create the required finished texture.



It is possible to combine renders of different colours by applying masking tape along the pre-determined line.



Interruptions in the work can be achieved by the use of masking tape. It is recommended to site day breaks in places where they are less visible such as behind down pipes and at window lines etc. or where a natural break exists such as a movement joint.



Plinths and High Impact Areas

Ceresit CT 77 mosaic renders can be used at plinth levels where they are liable to become dirty or come into contact with water or earth at or below ground level. They are also suitable for high impact areas such as stairwells and door openings.

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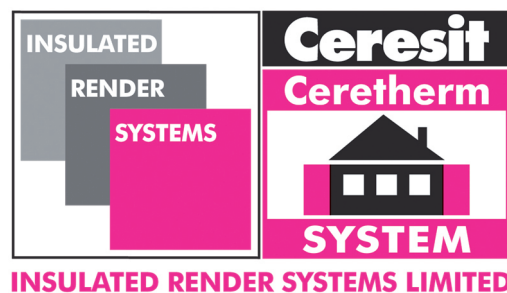
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