

# *Udi*IN 2CM® SYSTEM

*The quick and slim internal  
insulation system*



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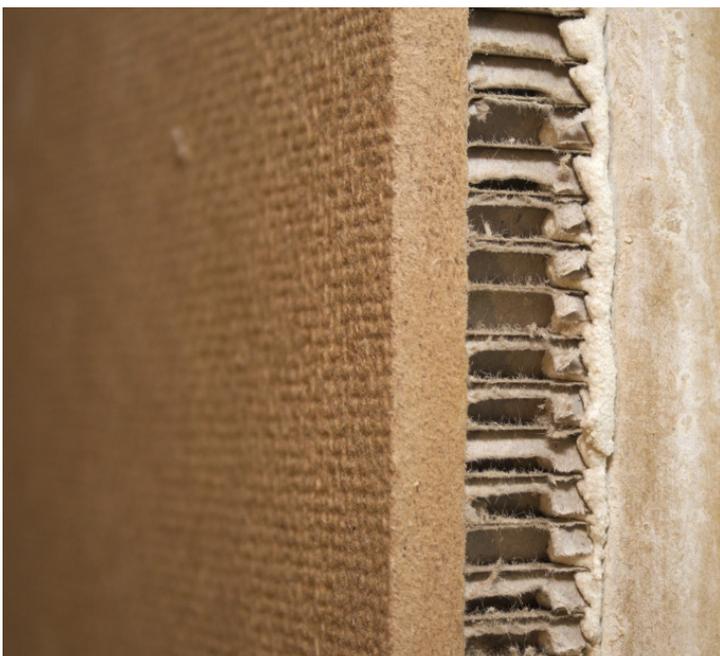
New building



Older building

Our interior insulation is not only easy and cost-efficient to install but also provides decisive energy-saving benefits. For façades that cannot be insulated externally, whether this is because of conservation orders, aesthetic reasons or building regulations, internal insulation is always the first choice.

The **UdiIN 2CM<sup>®</sup>** insulation board combines a matrix of air columns with a wood-fibre insulation board.



**UdiIN 2CM<sup>®</sup>** with climate chambers

## Applications

- Listed buildings
- Private houses, apartments
- Schools, hospitals, kindergartens
- Community and assembly rooms
- Holiday homes, offices and much more
- Concrete tower blocks

## Benefits

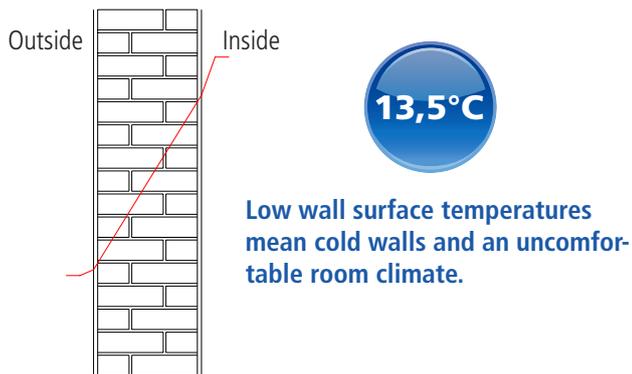
- Space-saving, slim 2 cm construction
- Simple installation using adhesive
- For every room where space is limited
- Bridges cracks on all substrates
- No harmful emissions
- Improves the humidity and room climate
- Perceptibly warmer exterior walls in winter
- Sound absorbing due to the stationary air columns
- Suitable for all surface coatings, even tiles
- Increases the surface temperature
- The sensation of radiated cold disappears
- Energy-saving
- Very good price-performance ratio

## QUICK – SLIM – WARM

### The positive effects of the internal insulation of external walls

The internally insulated rooms can be heated very quickly as the solid external walls must not be warmed along with the room. This factor is often overlooked and offers huge potential for saving energy.

### WITHOUT UdiIN 2CM®



**The result:** You have to turn up the heating.

**Effect:** The room air is warmed but not the wall. Condensation develops on the wall and can lead to mould growth.

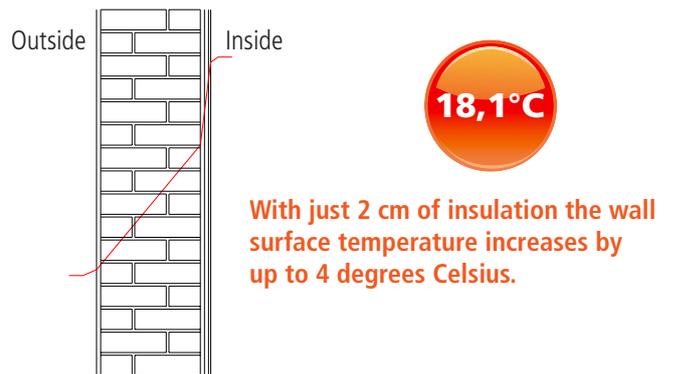
Temperature data confirmed by the Institute EPH – see page 5.



Current heating costs 100% - very high



### WITH UdiIN 2CM®



**Effect:** The wall radiates heat.

**The result:** You have to heat less. A pleasant and natural room climate is created and the danger of condensation developing is reduced.



Heating costs reduced by up to 50%



Cracks in the substrate



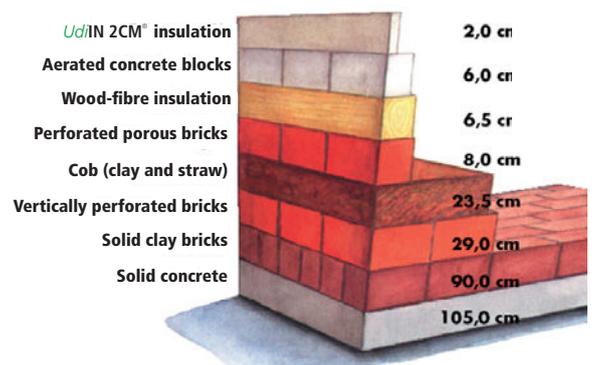
Attractive crack-free surfaces

## The right, comfort-promoting, interior insulation – for every season



### Five arguments for UdiIN 2CM®

- ➔ **A positive room climate – all year round**  
 In the cold seasons everybody wants to keep comfortably warm and in the summer pleasantly cool. The new insulation system guarantees consistently warm external walls in winter. Everybody has heard of the “double glazing effect”. The insulating effect is provided by the stationary air layer between the panes. Even better than double glazing, the **UdiIN 2CM® SYSTEM** also absorbs moisture and transports it away. This promotes a comfortable room climate, all year round.
- ➔ **Ecological**  
 This environmentally-friendly interior insulation system is made from 100 % renewable and recycled raw materials - wood fibres combined with a cellulose honeycomb matrix. Bring the forest into your home!
- ➔ **Capillary-active for increased comfort**  
 The materials used in this product are able to absorb moisture in the room air, to store it and then release it to the exterior or interior via tiny capillaries. This action maintains a positive, healthy room climate. A vapour retarder is not required.
- ➔ **Keeps walls looking good**  
 The insulation system bridges small cracks in the external wall. It is suitable for all types of surface coatings and sets no limits on your decorating wishes.
- ➔ **A unique insulating effect**  
 In the **UdiIN 2CM® SYSTEM** the stationary air layer is enclosed within the walls of the climate chambers that run parallel and vertically to the heat flow. Due to its high thermal storage capacity, the surface temperature of the **UdiIN 2CM® SYSTEM** is much higher than, for example, a traditional brick wall.



Two centimetres of **UdiIN 2CM®** insulation have the same insulating effect as a 105 cm solid concrete wall.



Entwicklungs- und  
Prüflabor  
Holztechnologie  
GmbH Dresden



### Technical Test Protocol

The energy and temperature changes on a wall insulated with **UdiIN 2CM®** were investigated using a 24 cm thick sand-lime brick wall with a standardized test surface of 1.8204 m<sup>2</sup>.

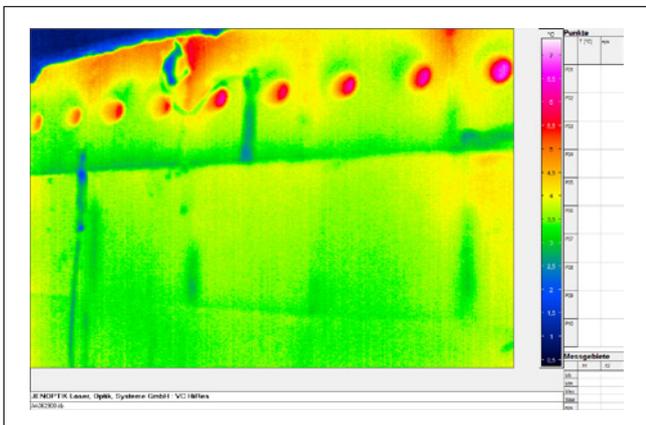
The thermal conductivity coefficient of the sand-lime brick wall was measured before the test at a value of 2.99 W/m<sup>2</sup> K.

After the installation of the **UdiIN 2CM®** boards the sand-lime brick wall showed an improved thermal conductivity coefficient value of 1.40 W / m<sup>2</sup> K.

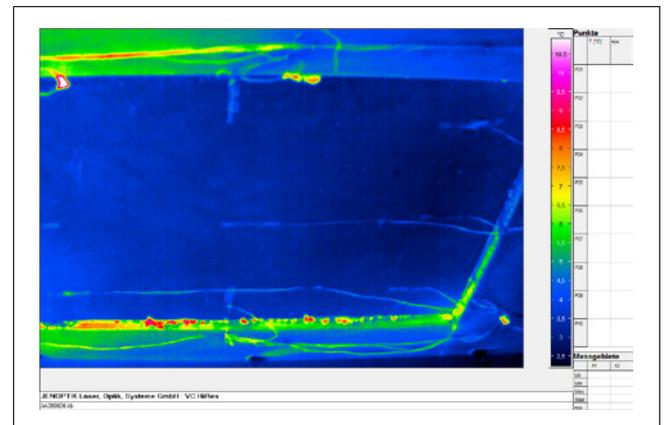
### Energy losses are reduced by up to 50%

### The thermal images show convincing results

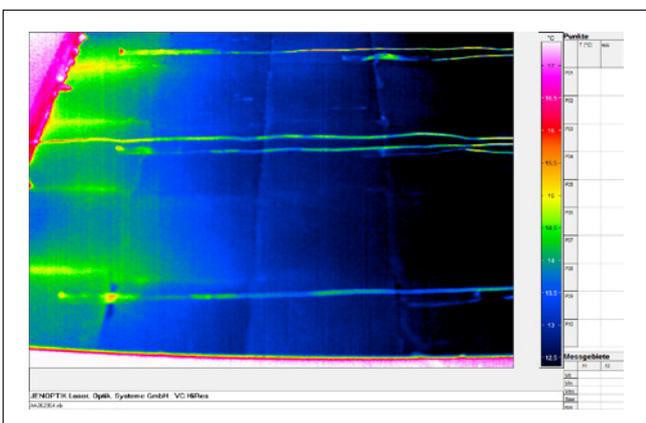
The thermal imaging pictures clearly show the before-and-after temperatures of the wall.



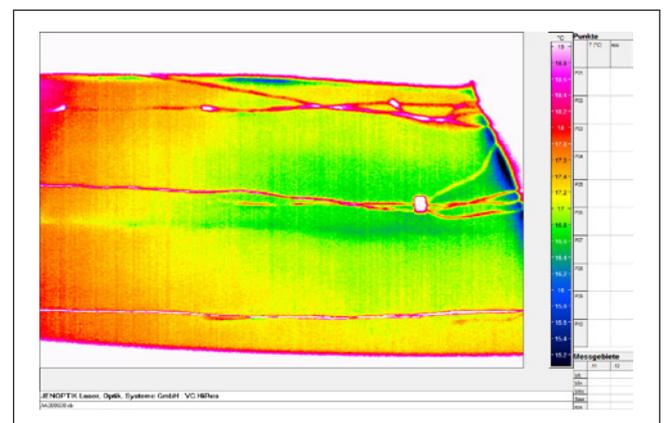
Cold side (outside) WITHOUT **UdiIN 2CM®**  
+4 degrees Celsius  
The energy flows to the exterior



Cold side (outside) WITH **UdiIN 2CM®**  
-4,5 degrees Celsius  
The energy stays in the room



Warm side (inside) WITHOUT **UdiIN 2CM®**  
+13,5 degrees Celsius  
The temperature of the wall surface is low (danger of mould growth)



Warm side (inside) WITH **UdiIN 2CM®**  
+18,1 degrees Celsius  
The wall surface temperature has been raised to 18.1 degrees Celsius

# UdiIN 2CM<sup>®</sup> System

For quick and easy installation

1



Firstly, check the stability of the surface of the substrate to be insulated. Mix the **UdiFOUNDATION COAT<sup>®</sup>** and apply a 6-8 mm layer directly to the substrate using a toothed trowel. The thickness of the coat may vary depending on the surface characteristics.

3



The insulation boards are pressed into the bed of **UdiFOUNDATION COAT<sup>®</sup>** by applying a light, uniform pressure. A drying time of around 2 days should be allowed (at normal temperature 18° C and 60 % relative humidity).

2a



To cut the **UdiIN 2CM<sup>®</sup> Insulation Boards** to size, an electric woodworking machine, circular saw or jigsaw is recommended, but even a craft knife can be used.

4



The **UdiFOUNDATION COAT<sup>®</sup>** is then applied to the installed insulating layer and reinforced using a layer of **UdiREINFORCEMENT<sup>®</sup> Strengthening Mesh**.

2b



Even a craft knife can be used to cut the **UdiIN 2CM<sup>®</sup> Insulation Boards**.

5



Using this system you can, of course, also renovate ceilings and the interior surfaces of pitched roofs which require renewal. In corner areas (internal and external corners) **UdiREINFORCEMENT<sup>®</sup> Corner Protection Profiles** should also be installed. Alternatively, an exact joint can be formed and then filled with a suitable, paintable sealant.

## UdiSystem Products



### → UdiIN 2CM® Insulation board

The newly developed insulation board can be used in a wide range of interior construction applications; above all when the aim is to increase the surface temperature of the external wall whilst maintaining the room climate characteristics. With a total thickness of only 20 mm, the insulation board is one of the slimmest on the market. **UdiIN 2CM®** is a combination of an 8 mm **UdiWOOD FIBRE** board with a 15 mm climate chamber board, which provides an insulating layer of stationary air. The boards are set in to a bed of adhesive of around 2 mm.

Technical data:

Bulk density wood-fibre: 230 kg/ m<sup>3</sup>

Thickness: 23 mm (2 mm in adhesive bed)

Format: 115 x 75 cm

Fire behaviour: DIN EN 13501-1: E

Waste code according to EWC: 030105, 170604



### → UdiFOUNDATION COAT® mineralischer Klebe- und Armierungspachtel

The easy-to-use **UdiFOUNDATION COAT®** exhibits excellent adhesive properties on all solid substrates and on natural wood-fibre insulation boards. It can be mixed and applied both manually and with a machine. The moisture transportation properties of this specially developed coating improve the climate of the room when using internal insulation. Its natural components include lime and quartz sand.

Coverage (for reinforcement):

5-6,5 kg / m<sup>2</sup>

Coverage (used as an adhesive):

5,0 - 7,0 kg / m<sup>2</sup>



### → UdiREINFORCEMENT® Strengthening Mesh for stability and bridging of cracks

This special, finely-woven strengthening mesh ensures a low level of surface tension as the adhesive dries and a strong, stable base for any additional coatings of the insulation system. It is bedded-in to the upper third of the **UdiFOUNDATION COAT®** layer. It provides a high level of rigidity and dynamic loading resistance. The finished coated layer can then be wallpapered, plastered or simply painted over. The choice is yours.



### → UdiSTEAM® Air- & Wind-Proof

Self-adhesive PUR-foam tape. Pre-compressed (left), self-expanded (right). Wind-tightness is guaranteed. May also be plastered or painted over. Available in various thicknesses



### → UdiREINFORCEMENT® Corner Protection Profile

Extra strong plastic profile for the reinforcement of internal and external right-angled corners. Complete with pre-welded strengthening mesh strips. For all wall and ceiling areas. These profiles should be affixed before the installation of the **UdiREINFORCEMENT®** Strengthening Mesh.



### → UdiLIVE® Interior Paints

This exquisite interior paint is made from natural minerals and vegetable components such as loam-clay, chalk, plant-based emulsifier, cellulose, Saflor stand-oil and water. It is air-permeable, moisture-regulating, odourless and suitable for allergy sufferers. Dries with a raw, sandy finish.

## OUR SYSTEM RANGE:

### For the roof:

#### UdiFLEX® SYSTEM

*Flexible planning with a flexible insulation to meet the highest of demands*

#### UdiTOP® SYSTEM

*The complete program for your roof*

### For the façade:

#### UdiRECO® SYSTEM

*External thermal insulation composite system with intelligent levelling compensation*

#### UdiFRONT® SYSTEM

*External thermal insulation composite system with a 15 year guarantee*

#### UdiSPEED® SYSTEM

*The efficient insulation system for pre-fabricated, timber-frame buildings*

### For interior insulation:

#### UdiIN® SYSTEM

*Interior insulation system with a 15 year guarantee*

#### UdiIN RECO® SYSTEM

*The interior insulation system – specially designed for uneven surfaces*

#### UdiIN 2CM® SYSTEM

*The quick and slim internal insulation system*

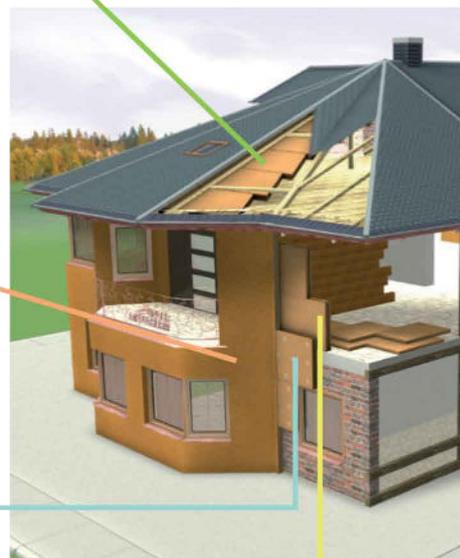
### For interior construction:

#### UdiCLIMATE® SYSTEM

*The interior insulation system with integrated climate chambers*

#### UdiSTEP® SYSTEM

*Wood-fibre, floor insulation*



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*Insulate naturally. The Original*

[WWW.UDIDAEMMSYSTEME.DE](http://WWW.UDIDAEMMSYSTEME.DE)