



Udi PRODUCT-
INFORMATION

DAS ORIGINAL UNGER
DIFFUTHERM®
Innovative Thermal Insulation Systems

NEWLY DEVELOPED

Udi IN RECO® SYSTEM

*A new interior wood-fibre insulation system
– specially designed for uneven surfaces*



WWW. UNGER-DIFFUTHERM.COM

Udi IN RECO[®] SYSTEM

Our active interior insulation is a real alternative to vapour-tight solutions

Dear reader,

The interior insulation of external walls is still a controversial subject amongst many planners and tradesmen. Issues such as the transfer of the dew-point (condensation-point) to the interior side of the wall and the risks of severe moisture problems which can lead to structural damage are often raised. As both a manufacturer and provider of insulation systems for over twenty years, we have been investigating and developing solutions for use in this area. Our many years of experience in the production and application of natural, high-performance insulation materials has enabled us to develop an innovative but simple, safe and effective solution which finally solves the problem of mould growth behind the insulation layer and also meets modern, energy-saving requirements. The applicability of this product ranges from thin, half-timber building walls to thick, palace walls. This brochure is designed to give you a brief overview of the system and its application providing you with a new option for your interior insulation projects. We hope you find it informative!

Your Unger-Diffutherm Team.

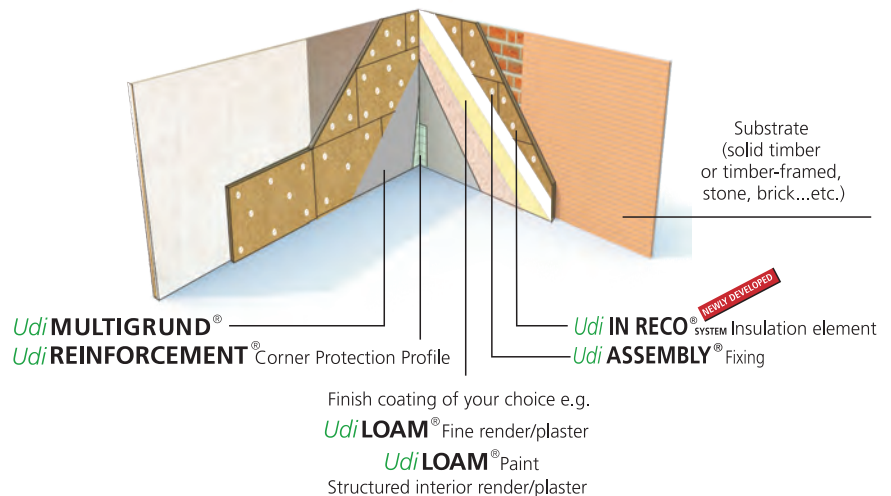
Energy-conscious renovations

If your building can not or should not be insulated externally or in buildings in which certain rooms are only occasionally used, whether these are in public buildings or private homes, the Udi IN RECO[®] SYSTEM enables the speedy and efficient heating of those areas where the heat is needed quickly. Through the installation of the Udi IN RECO[®] SYSTEM, the comfort of the rooms and the heat retention can be improved considerably. This is especially noticeable on cold and wintry days. The benefit for you is that have the option of insulating only those rooms which are regularly used and need to be heated. The thermal insulation value is maintained due our own specially developed water-vapour regulating render Udi MULTIGRUND[®]. The Udi IN RECO[®] SYSTEM is an active vapour diffusion system with a combined capillary effect in which the wood fibres naturally regulate the humidity level of the rooms. Contrary to foam or mineral-fibre insulation boards, the condensation which develops within the Udi IN RECO[®] SYSTEM is absorbed and through the natural drying of the wood fibres is transported back into the room air or transported to the exterior via the capillary effect.

A vapour barrier is unnecessary when insulating the interior side of external walls with the Udi IN RECO[®] SYSTEM. Your house feels like it has a second skin!



This residential building has been modernised to the highest standards



Insulation depth mm with loam infill		Clay bricks Rendered both sides $\lambda = 0.68 \text{ W/ (mK)}$			Vertically perforated bricks Rendered both sides $\lambda = 0.42 \text{ W/ (mK)}$			Half-timbered construction Interior render $\lambda = 0.50 \text{ W/ (mK)}$		
Wall thickness cm		11.50	24.00	36.50	11.50	24.00	36.50	12.00	14.00	18.00
Uninsulated	0	2.56	1.74	1.32	2.02	1.26	0.92	2.17	1.99	1.72
	80	0.44	0.41	0.38	0.42	0.37	0.34	0.44	0.43	0.41
ENEV 2007*	100	0.36	0.34	0.32	0.35	0.31	0.29	0.36	0.35	0.34
	120	0.30	0.29	0.27	0.29	0.27	0.25	0.30	0.30	0.29
ENEV 2009*	140	0.26	0.25	0.24	0.25	0.23	0.22	0.26	0.26	0.25

* ENEV - the official German, constructional, energy - saving regulations

Achievable U-values Udi IN RECO[®] SYSTEM with various wall substrates
 Further information is available under www.unger-diffutherm.com

Udi IN RECO[®] SYSTEM

In Detail

Installation and fixing

These newly developed insulation boards are installed offset to each other directly against the substrate and secured using our special, adjustable fixing screws. Once adjusted, any void spaces are automatically filled by the flexible insulation layer thereby avoiding the build-up of condensation.



Water-vapour regulating reinforcement with Udi MULTIGRUND[®]

This specially developed, water-vapour regulating, foundation render, with a stabilising strengthening mesh, is applied to the insulating boards. This coat should have a minimum thickness of 4 - 5 mm. This is the base for a durable, permanently dry, crack-free and ready-to-paint surface.



Surface design

The final step is the application of a finishing coat using the material of your choice. You can choose from our comprehensive range of loam plasters, loam paints or fine, structured plasters – available in a wide selection of various colours and tones – or another preferred option.



Advantages:

- ▶ Adjustable insulation depth using our specially designed fixings
- ▶ No additional, installation-related moisture content
- ▶ Compensates for uneven wall surfaces +/- 20 mm over the whole surface
- ▶ Improves the room climate
- ▶ Significant energy savings
- ▶ Blocks the radiation of the cold
- ▶ Uncomplicated installation
- ▶ No mould growth on the surface or within the construction
- ▶ Once reinforced using Udi MULTIGRUND[®] all surfacing methods are possible e.g. tiles, paint, wallpaper
- ▶ Additional interior and exterior sound-proofing



Udi IN RECO[®] SYSTEM

Technical data - Insulation boards:

Applications

According to DIN V 4108 - 10
 DAD, aDZ, DI, DEO, WAB, WAP, WH,
 WI, WTR as per DIN EN 13171
 T4-CS(10\Y)70-TR7.5-WS1.0

Components

Coniferous wood, max. 0.5 % Paraffin, 1.5 % PVAC
 (For bonding the insulation layers)
 < 6 % Binding fibres in the sandwich construction

Technical data

Thermal conductivity declared value 0.041 W/mK
 Vapour diffusion resistance μ 5
 Apparent density ca. 55/ 230 kg/m³
 Fire classification DIN 4102-1B2
 Euro class DIN EN 13501-1E

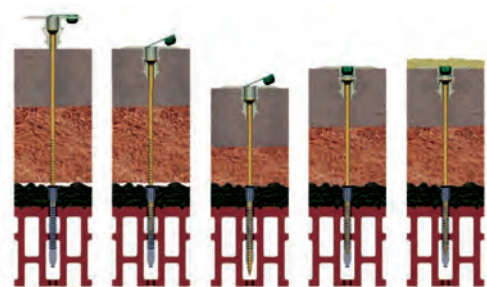
Dimensions

Format 1,300 x 790 mm
 Tongue and groove around the whole circumference
 Insulation thicknesses: 80, 100, 120, 140, 160, 180
 and 200 mm

Technical data Udi MULTIGRUND[®] as a vapour retarder:

A special coating for interior insulation systems from Unger-Diffutherm. This intelligent vapour retarder limits the level of condensation. Serves as a reinforcement coat and bearer layer for fine quality plasters, paint, wallpaper and other coatings.

Granularity: ca. 0.4 mm
 Compressive strength: ca. 4 - 9 N/mm²
 μ -Value: ca. 80
 Reinforcement layer thickness: min. 4 - 5 mm
 (according to the required vapour retardation value)



Patented adjustable fixing with the extraction sealing mechanism

Unger-Diffutherm offers you further
 top quality wood-fibre insulation systems:

UdiTOP®
 SYSTEM

The complete program for your roof

UdiIN®
 SYSTEM

The ecological interior insulation system

UdiFRONT®
 SYSTEM

The proven insulation system for tomorrow, available today

UdiSPEED®
 SYSTEM

*The efficient 40 mm render-bearer insulation board system
 for timber buildings*

UdiIN RECO®
 SYSTEM

A new interior insulation system- specially designed for uneven surfaces

UdiRECO®
 SYSTEM

A new exterior insulation system- specially designed for uneven surfaces

UdiCLIMATE®
 SYSTEM

The interior insulation system with integrated climate chambers

UdiLOAM®
 SYSTEM

The complete, modern loam building system

Both we and our specialist merchants are always happy to provide you with a personal service
 to answer any questions you may have. Don't hesitate to contact us.



HEADQUARTERS GERMANY
Unger-Diffutherm GmbH
 Blankenburgstr. 81
 D-09114 Chemnitz

Telefon +49(0)371-81 56 40
 Telefax +49(0)371-81 56 4-64
 eMail info@unger-diffutherm.de



KOMPETENZZENTRUM SÜD
Unger-Diffutherm GmbH
 Gustav-Schöller-Straße 4
 D-72116 Mössingen

Telefon +49(0)74 73-95 344 80
 Telefax +49(0)74 73-95 344 85
 eMail udi-sued@unger-diffutherm.de



VERTRETUNG ÖSTERREICH
Unger-Diffutherm Österreich
 Mayrhofstr. 15
 A-4644 Scharnstein

Telefon +43(0) 6 64-1 26 91 45
 Telefax +43(0) 6 64-5 63 45 64
 eMail austria@unger-diffutherm.de



VERTRETUNG SCHWEIZ
Unger-Diffutherm Schweiz
 Kohlackerstrasse 8
 CH-4323 Wallbach/AG

Telefon +41(0) 6 18 61-16 16
 Telefax +41(0) 6 18 61-16 15
 eMail suisse@unger-diffutherm.de

