

# Ecological Building Systems

For over 20 years, Ecological Building Systems has been at the forefront of environmental and sustainable building products. As the sole distributor in Ireland and the UK for Pro Clima, Gutex and Diasen products, Ecological supply a range of innovative airtightness solutions and natural insulations backed up with expert technical support. Read more at: [www.ecologicalbuildingsystems.com](http://www.ecologicalbuildingsystems.com)

## Technical Product and Sales Support

Full technical support is available for all products. At each stage of your new build or refurbishment project during planning, specification, installation, and build, Ecological provide expert assistance and guidance to optimise outcomes in compliance with building regulations. A WUFI assessment is recommended for areas more exposed to wind-driven rain where additional protective measures may be needed. Construction details and specification clauses can also be provided, along with technical drawing reviews and in-depth CPD training.

Products have been independently tested and have the following certifications (please see our website for product specific certifications):



While every effort has been made to ensure the accuracy of the information provided in this brochure, we cannot accept responsibility for any errors or omissions. It is recommended to verify all details, product suitability, and installation practices to ensure they meet the specific requirements of your project.



## Diasen Product Guide



Discover our solutions online at [ecologicalbuildingsystems.com](http://ecologicalbuildingsystems.com)

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## Why Diasen?

Blending tradition and innovation, Diasen Diathonite cork lime thermal plasters ensure a sensitive thermal refurbishment can be attained with materials which are compatible, effective and environmentally friendly. Independently verified by numerous test bodies, these thermal plasters demonstrate reduced thermal conductivity and increased porosity, setting them apart from many synthetic insulating materials. They are a favoured option for thermally renovating traditional buildings while maintaining their beauty and architectural character and integrity.

Diasen products have been carefully formulated over many decades to optimise their porosity, vapour permeability, capillarity, and thermal performance.



The primary ingredients in **Diathonite Evolution** are:

- Cork granulates
- Hydrated lime
- NHL 3.5 binder
- Clay
- Diatomaceous earth

The primary ingredients in **Diathonite Thermactive .037** are:

- Cork granulates
- Hydrated lime
- NHL 5 binder
- Diatomaceous earth
- Pumice
- Perlite
- Expanded silica



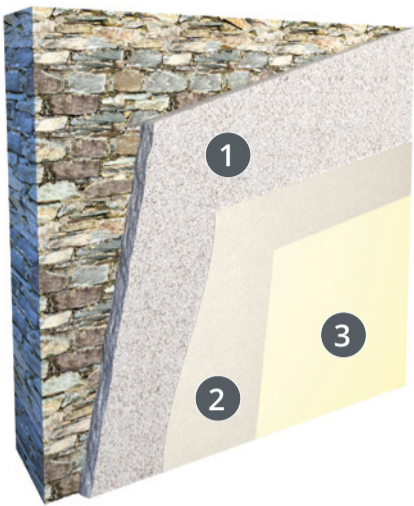
## Key Benefits

- Enhances the thermal performance of solid masonry walls, even when applied in low thicknesses.
- Composed of natural materials such as cork, clay, and lime, which is inherently mould resistant.
- Fully breathable, helping to regulate humidity and prevent condensation.
- Facilitates sympathetic restoration of older buildings while preserving the unique characteristics of existing walls.
- Euroclass A1 fire resistance, which means it does not burn or produce smoke, thereby improving the fire safety of buildings.

# Combining traditional materials to optimise building performance



Suitable for thermally retrofitting traditional masonry walls



Internal buildup



External buildup



**Diathonite Thermactive .037**  
Lime and cork insulating plaster



**Diasen Argatherm**  
Lime-based finishing plaster



**Auro Natural Breathable Paint**  
Breathable natural paint



**Diathonite Evolution**  
Lime and cork insulating plaster



**Diathonite Regularisation**  
Restoration plaster and salt barrier



**Watstop**  
Waterproof splash protection and tanking plaster

## Diathonite and Argatherm U-value tables

Wall type	Thickness of application (mm)	Diasen Diathonite Evolution & Argatherm U-Value (W/m²K)	Diasen Diathonite Thermactive & Argatherm U-Value (W/m²K)
220mm brick	Uninsulated wall*	2.19	2.19
	10mm	1.41**	1.32**
	20mm	1.07	0.97
	30mm	0.86	0.77
	40mm	0.72	0.63
	50mm	0.62	0.54
	60mm	0.55	0.47
	70mm	0.49	0.42
	80mm	0.44	0.37
	90mm	0.40	0.34
	100mm	0.36	0.31
	110mm	0.34	0.28
	120mm	0.31	0.26

Wall type	Thickness of application (mm)	Diasen Diathonite Evolution & Argatherm U-Value (W/m²K)	Diasen Diathonite Thermactive & Argatherm U-Value (W/m²K)
500mm stone	Uninsulated wall*	2.38	2.38
	10mm	1.48**	1.38**
	20mm	1.11	1.00
	30mm	0.89	0.79
	40mm	0.74	0.65
	50mm	0.64	0.55
	60mm	0.56	0.48
	70mm	0.49	0.42
	80mm	0.44	0.38
	90mm	0.40	0.34
	100mm	0.37	0.31
	110mm	0.34	0.29
	120mm	0.32	0.27

\* Adopting best practice, the values given for existing uninsulated stone and brick walls are derived from EN ISO 10456: 2007. U-values can vary depending on stone or brick type.

\*\* Theoretical value only as Diathonite should be applied at a minimum thickness of 15mm. Above based on Argatherm applied at a thickness of 4mm (2 coats of 2mm).

## Full range of products



**Deumix Plus**  
Lime, cork, and clay-based moisture managing insulating plaster and salt inhibitor



**Acoustix Plus**  
Eco-friendly cork-based sound absorbent plaster



**Argacem Ultrafine**  
Breathable lime-based smooth finishing plaster for internal use over Argatherm



**Aquabond**  
Water-based breathable primer for Diathonite plasters



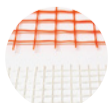
**Diasen D20**  
Water-based acrylic primer



**Diathonite Thermostep .047**  
Fibre reinforced insulating cork and lime-based floor screed



**BKK Eco**  
Breathable water-based and colourless rain repellent coating



**Polites 140 and 80 Reinforcing Mesh**  
Fibreglass reinforcing mesh for use with Diasen plasters

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For over 20 years, Ecological Building Systems has been at the forefront of environmental and sustainable building products supplying a range of innovative airtightness solutions and natural insulations backed up with expert technical support.

**As product suppliers in the UK and Ireland, we're happy to assist you with your projects and have expert technical and sales advice on hand.**



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