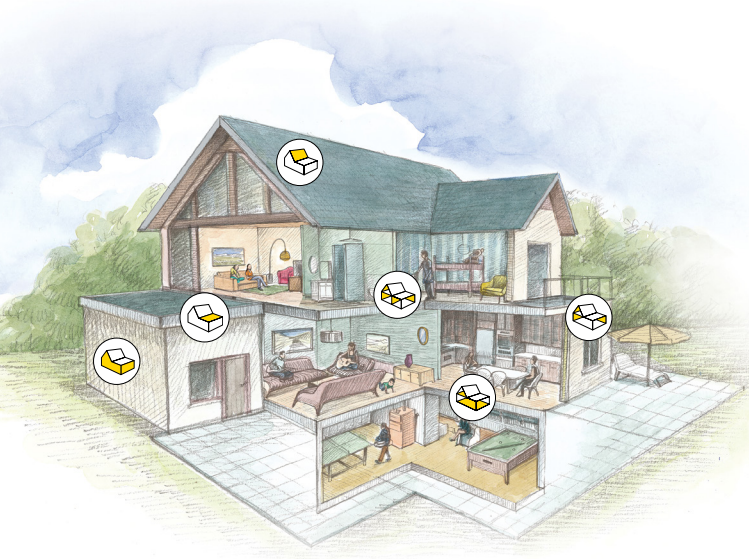


FEEL
GOOD
INSIDE



UK

Insulation Guide

Your reference for Recticel's
insulation solutions.

Feel good inside

As your insulation partner, we work together to create a feel good inside climate by providing a range of intelligent insulation solutions. By constantly innovating and improving our products we want to increase comfort for you and your customers. Discover the many ways you benefit from insulating with Recticel Insulation:



Stable inside temperature

Recticel Insulation guarantees maximum comfort by creating a living or working environment with a healthy and stable inside climate.



Quick installation

The boards are user friendly and comfortable to install. They reduce the installation time on site.



Lightweight

The insulation boards are light and easy to handle.



Easy to cut

Our boards are easy to cut on site in different dimensions. This gives you the ability to customise sizes to fit every project.



More living space

With their high insulation values, the insulation boards give you the opportunity to install thinner layers of insulation and create extra living space.

	Flat roofs				Pitched roofs	Walls	Floors	Soffit Liner
	Single ply membrane	Torch-on felt	Mastic asphalt	Built-up felt				
λ Eurothane® GP					5	5	5	
λ Eurowall® Cavity						7		
λ Eurowall® +						9		
λ Eurothane® PL					11	11		
λ Eurothane® Eurodeck	13							
λ Powerdeck® F	15		15	15				
λ Powerdeck® U		17		17				
λ Plylok®	19			19				
λ Deck-VQ®						21		

Introduction

As well as producing PIR products of unparalleled quality, Recticel Insulation is a company of thought leaders and creators, driven by a desire to develop insulation which establishes unprecedented levels of thermal performance and usability. Based at its state-of-the art facility in Stoke-on-Trent, Recticel Insulation - which is part of the Recticel Group, one of the world's largest producers of polyurethane products - is a committed solution-provider: an industry pioneer in the quest for future generations to be able to enjoy a sustainable environment, without compromising on comfort.



Much of our lifetime will be spent at home and in the workplace. Therefore, ensuring both areas are well-insulated is of the utmost importance. By creating a healthy interior climate, we enhance the well-being of those within. Customer comfort lies at the heart of Recticel Insulation's success - and there can be no greater achievement than its facilitation of safe, secure and sustainable living space.

Insulating a building is a once-in-a-lifetime investment, hence the need to select insulation products of proven quality to help reduce long-term energy consumption - a major contributor to lowering carbon emissions and meeting the challenge of global warming. Renowned as a leading technical innovator within the insulation industry, Recticel is focused on the future needs of our children and guiding them towards a comfortable and worry-free future. Its worldview displays similar compassion. Recticel's products are designed and manufactured to result in the lowest environmental impact, and its Stoke-on-Trent site has attained ISO 14001 certification for its environmental management system.

In order to maintain its reputation as instigators par-excellence in the field of insulation advancement, Recticel's search for new and improved product solutions continues daily at its Belgium-based Sustainable Innovation Department. From its high-specification European facility, a dedicated research and development team works tirelessly to discover formulas which will lead to the manufacture of materials comprising even greater thermal efficiency and workability. Quality product producers, unbeatable service providers, environmental engagers, future solution suppliers. Recticel Insulation has more than earned its position as one of the world's leading PIR manufacturers - but its journey has only just begun.

Eurothane® GP is a high performance PIR insulation solution, perfectly suited for multiple applications.



For pitched roofs, walls and floors*

► Main benefits

- Suitable for multiple applications
- Good thermal performance: $\lambda_D = 0.022$ W/mK
- Quick, easy installation
- Space-saving
- Strong and reliable solution
- Easy to cut and install

► Key specifications

Lambda (λ)	0.022 W/mK
Size(s)	2400x1200 mm
Fire performance	Euroclass F, EN 13501-1
Edge finishing	Straight edges (all sides)
Compressive strength	25-49mm: 120 kPa, 50-160mm: 140 kPa

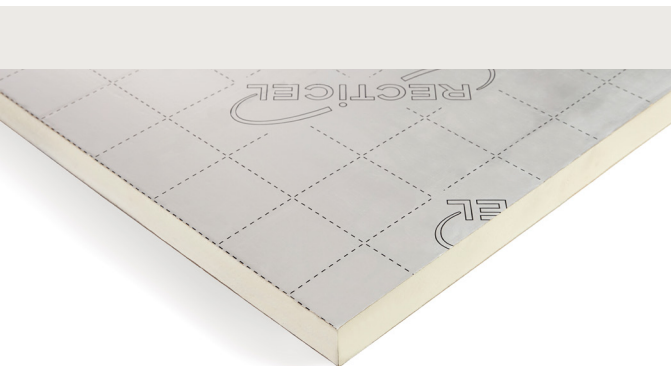
*In floor applications: to limit the risk of damage from condensation and other sources of dampness, the product and overlays should only be laid after the construction is made substantially weathertight, e.g. after glazing. During construction, the product must also be protected from water spillage, plaster droppings and traffic.

If the insulation boards are left exposed in cool temperatures without being fixed in place, there is the potential for them to warp due to the temperature differential between the floor and the air. Although this is rare and generally happens when the temperature is around or below 5 degrees it only happens when the boards are loose laid on the floor.

Ensure all boards are laid as close as possible to the screed/slab installation.

For further information see section 12.10 of the BBA certificate.



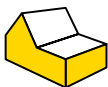


Thickness (mm)	Boards per pack	m ² per pack	Boards per stack	m ² per stack
25	12	34.56	96	276.48
30	10	28.80	80	230.40
40	8	23.04	56	161.28
50	6	17.28	48	138.24
60	5	14.40	40	115.20
70	5	14.40	35	100.80
75	4	11.52	32	92.16
80	5	14.40	30	86.40
90	5	14.40	25	72.00
100	4	11.52	24	69.12
110	3	8.64	21	60.48
120	4	11.52	20	57.60
130	3	8.64	18	51.84
140	3	8.64	15	43.20
150	3	8.64	15	43.20
160*	3	8.64	15	43.20

*See page 24 - 'Special order items'

Eurowall[®] Cavity

Eurowall[®] Cavity is a high performance PIR insulation solution for partial fill masonry cavity wall applications.



For walls

► Main benefits

- Good thermal performance: $\lambda_D = 0.022$ W/mK
- Easy to cut and install
- Limited moisture absorption
- Durability

► Key specifications

Lambda (λ)	0.022 W/mK
Size(s)	1200x450 mm
Fire performance	Euroclass F, EN 13501-1
Edge finishing	Straight edges (all sides)



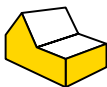


Thickness (mm)	Boards per pack	m ² per pack	Boards per stack	m ² per stack
30*	32	17.28	160	86.40
40*	24	12.96	120	64.80
50	20	10.80	100	54.00
60	16	8.64	80	43.20
70	14	7.56	70	37.80
75	12	6.48	60	32.40
80	12	6.48	60	32.40
90	10	5.40	50	27.00
100	10	5.40	50	27.00

*See page 24 - 'Special order items'

Eurowall® +

Eurowall® + is a high performance PIR insulation solution for full fill masonry wall applications with a 10mm clear cavity.



For walls

► Main benefits

- Good thermal performance: $\lambda_D = 0.022$ W/mK
- Easy and fast installation
- Helps to achieve 0.18 U-value in 100 mm cavities
- Tongue and groove rebate minimises thermal bridging
- Alkali-resistant facing

► Key specifications

Lambda (λ)	0.022 W/mK
Size(s)	1200x460 (max including tongue and groove joint) 1190x450 (installed dimensions) mm
Fire performance	Euroclass F, EN 13501-1
Edge finishing	Tongue and groove



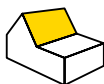


Thickness (mm)	Boards per pack	m ² per pack	Boards per stack	m ² per stack
75*	12	6.48	60	32.40
90	10	5.40	50	27.00
115	8	4.32	40	21.60
140	8	4.32	32	17.28

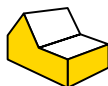
*See page 24 - 'Special order items'

Eurothane[®] PL

Eurothane[®] PL is a durable PIR insulation and plasterboard in a single, handy panel for internal walls and pitched roof applications.



For pitched roofs



For walls

► Main benefits

- 3-in-1 solution: insulation board, vapour control layer and plasterboard
- Good thermal performance: $\lambda_D = 0.022$ W/mK
- Multiple application methods

► Key specifications

Lambda (λ)	0.022 W/mK (insulation only)
Size(s)	2400x1200 mm
Fire performance (end use with plasterboard 12.5mm)	Euroclass B-s1, d0 (end use), EN 13501-1
Edge finishing (insulation)	Straight edges (all sides)

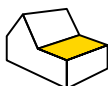




Thickness (mm)*	Boards per pack	m ² per pack
25	26	74.88
40	20	57.60
50	18	51.84
65	15	43.20

* thickness of 12.5mm plasterboard not included

Eurothane® Eurodeck is a high performance PIR insulation solution for use in warm flat roofs under mechanically fixed single ply membrane systems.



For flat roofs

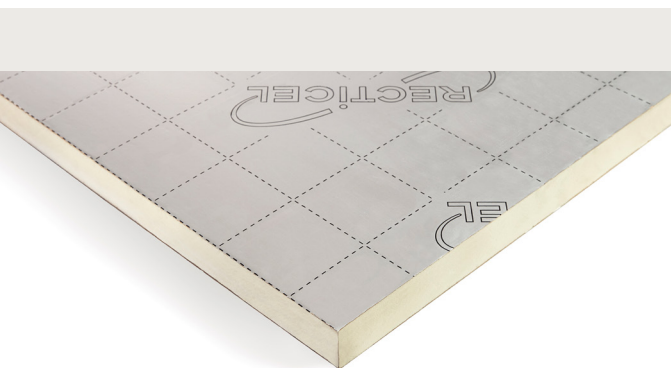
► Main benefits

- Good thermal performance: $\lambda_D = 0.022$ W/mK
- High compressive strength
- Compatibility with numerous waterproofing systems
- Easy handling and installation
- Durability

► Key specifications

Lambda (λ)	0.022 W/mK
Size(s)	2400x1200 mm
Fire performance	Euroclass F, EN 13501-1
Edge finishing	Straight edges (all sides)
Compressive strength	≥ 150 kPa



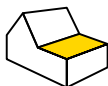


Thickness (mm)	Boards per pack	m ² per pack	Boards per stack	m ² per stack
25**	12	34.56	96	276.48
30	10	28.80	80	230.40
40	8	23.04	56	161.28
50	6	17.28	48	138.24
60	5	14.40	40	115.20
70	5	14.40	35	100.80
75	4	11.52	32	92.16
80	5	14.40	30	86.40
90	5	14.40	25	72.00
100	4	11.52	24	69.12
110	3	8.64	21	60.48
120	4	11.52	20	57.60
130	3	8.64	18	51.84
140	3	8.64	15	43.20
150	3	8.64	15	43.20
160*	3	8.64	15	43.20

*See page 24 - 'Special order items'

**Separate to the BBA Certificate

Powerdeck® F is a durable PIR insulation solution for use in single ply membrane, built-up felt and mastic asphalt waterproofing systems.



For flat roofs

► Main benefits

- Good thermal performance: $\lambda_D = 0.024 \text{ W/mK}^*$
- High compressive strength
- Compatibility with numerous waterproofing systems
- Easy handling and installation
- Durability

► Key specifications

Lambda (λ)	0.024 W/mK ($\geq 120 \text{ mm}$), 0.025 W/mK (80 - 119 mm), 0.026 W/mK ($\leq 79 \text{ mm}$)
Size(s)	1200x600 mm
Fire performance	Euroclass F, EN 13501-1
Edge finishing	Straight edges (all sides)
Compressive strength	150 kPa

*Thickness dependent



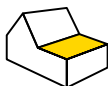


Thickness (mm)	Boards per pack	m ² per pack	Boards per stack	m ² per stack
25**	20	14.40	200	144.00
30*	16	11.52	160	115.20
40*	12	8.64	120	86.40
50	10	7.20	100	72.00
60*	8	5.76	80	57.60
70*	7	5.04	70	50.40
80	6	4.32	60	43.20
90	5	3.60	50	36.00
100	5	3.60	50	36.00
110*	4	2.88	40	28.80
120	4	2.88	40	28.80
130	4	2.88	32	23.04
140	4	2.88	32	23.04
150	4	2.88	32	23.04

*See page 24 - 'Special order items'

**Separate to the BBA Certificate

Powerdeck® U is a high performance PIR insulation solution for use in warm flat roofs with torch-on felt.



For flat roofs

► Main benefits

- Good thermal performance: $\lambda_D = 0.024 \text{ W/mK}^*$
- High compressive strength
- Compatibility with numerous waterproofing systems
- Easy handling and installation
- Durability

► Key specifications

Lambda (λ)	0.024 W/mK ($\geq 120 \text{ mm}$), 0.025 W/mK (80 – 119 mm), 0.026 W/mK ($\leq 79 \text{ mm}$)
Size(s)	1200x600 mm
Fire performance	Euroclass F, EN 13501-1
Edge finishing	Straight edges (all sides)
Compressive strength	$\geq 150 \text{ kPa}$

*Thickness dependent



Thickness (mm)	Boards per pack	m ² per pack	Boards per stack	m ² per stack
30	16	11.52	160	115.20
40*	12	8.64	120	86.40
50	10	7.20	100	72.00
60*	8	5.76	80	57.60
70*	7	5.04	70	50.40
80	6	4.32	60	43.20
90*	5	3.60	50	36.00
100	5	3.60	50	36.00
120	4	2.88	40	28.80
130	4	2.88	32	23.04
140	4	2.88	32	23.04
150	4	2.88	32	23.04

*See page 24 - 'Special order items'



Plylok[®] is a high performance PIR insulation solution for use in warm flat roofs under traditional bituminous waterproofing and single-ply waterproofing membranes.



For flat roofs

► Main benefits

- Good thermal performance: $\lambda_D = 0.022$ W/mK
- High compressive strength
- Compatibility with numerous waterproofing systems
- Easy handling and installation
- Durability

► Key specifications

Lambda (λ)	0.022 W/mK
Size(s)	2400x1200 mm
Fire performance	Euroclass F, EN 13501-1
Edge finishing	Straight edges (all sides)
Compressive strength	140 kPa



Thickness (mm)*	Boards per pack	m ² per pack
90	11	31.68
110	9	25.92
120	9	25.92

* thickness of 6mm ply not included

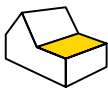
Deck-VQ[®] is an ultra-high performance, encapsulated VIP insulation for use in flat roofs and terraces.

Ultimate
insulation
value
 λ 0.008 W/mK
60mm panel

10 mm Protective PIR
Top and Bottom

Protective frame in PIR

0.006 W/mK VIP core



For flat roofs and terraces

▶ Main benefits

- The solution for limited space
- Ultra-high thermal performance
- Easy installation combined with expert service

▶ Key specifications

Lambda (λ)	0.008 - 0.009 W/mK
Size(s)	600x300 mm 600x600 mm 1200x300 mm 1200x600 mm
Fire performance	Euroclass E, EN 13501-1
Edge finishing	Straight edges (all sides)
Compressive strength	\geq 150 kPa
Insulation thickness	45mm / 60mm
R _D (m ² K/W)	5.00 / 7.50

Standards & Certificates

European assessment document (EAD)	040011-00-1201 2017
ETA	18/0846

For product information and enquiries please contact sales@gradient.co.uk

Area contacts

A

North East & Scotland

T: 07545 610753

B

Midlands and North

T: 07712 394050

C

East

T: 07483 413221

D

South Wales and South West

T: 07483 427934

E

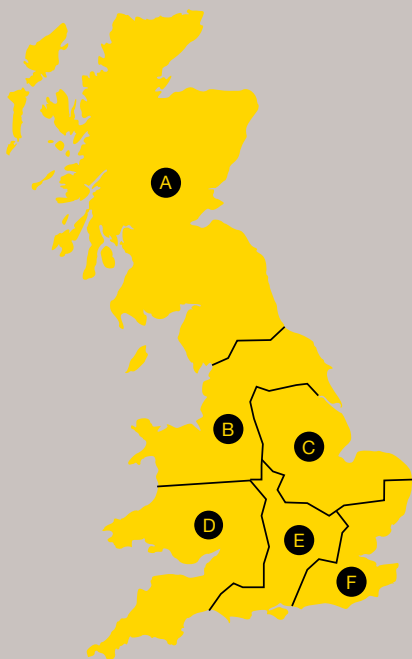
Central and South

T: 07484 532034

F

South East

T: 07483 367929



Contact us

Customer service centre

To place an order or for a price/leadtime enquiry please contact:

Address: Recticel Insulation, Enterprise Way,
Whittle Road, Meir Park, Stoke on
Trent, ST3 7UN, United Kingdom

Web: recticelinsulation.co.uk

Email: customer.services@recticel.com

Telephone: 01782 590 480

Opening Times

Monday	8am – 5pm
Tuesday	8am – 5pm
Wednesday	8am – 5pm
Thursday	8am – 5pm
Friday	8am – 4.30pm

Technical services

For all technical product and application queries please contact:

Address: Recticel Insulation, Enterprise Way,
Whittle Road, Meir Park, Stoke on
Trent, ST3 7UN, United Kingdom

Web: recticelinsulation.co.uk

Email: technicalservices@recticel.com

Telephone: 0800 0854079

Opening Times

Monday	9am – 5pm
Tuesday	9am – 5pm
Wednesday	9am – 5pm
Thursday	9am – 5pm
Friday	9am – 4.30pm

Recticel's insulation is also available as a tapered board through our specialist single-layer insulation solution division, Gradient.

Web: gradientuk.com

Telephone: 01543 678777

GRADIENT

Email: sales@gradientuk.com

Full terms and conditions of sale are available upon request.

The prices, technical details and other information included in this literature are correct at the time of publication. Please contact Recticel Insulation UK sales to confirm availability and that information is still current. Product suitability should only be determined following a detailed U-value calculation and condensation risk analysis for each individual project. Please contact Recticel Insulation Technical services department for assistance.

Recommendations for use should be verified as to the suitability and compliance with actual requirements, specifications and any applicable laws and regulations. For other applications or conditions of use, contact Recticel Insulation Technical services department for assistance. Recticel Insulation Ltd. reserves the right to amend product specifications without prior notice. E.&O.E.

Terms and conditions

Special order items

Recticel is able to produce any standard product type in any standard size and/or thickness within its manufacturing capability. Products in this category will usually be delivered within 15 working days of order confirmation.

Orders for special order products cannot be accepted for less than the minimum order quantity. Customer services will confirm these details. The full order quantity must be taken as part of a single order and cannot be split.

Once ordered, special order products cannot be cancelled and full costs will be applied.

Please note: Special order items

Once an order has been placed and the manufacturing process has started, made-to-order products cannot be cancelled or amended and full costs will apply.

Delivery

Amending orders

Orders can be amended free of charge for stocked items up to 48 hours prior to delivery date or additional charges will apply.

Cancelled deliveries

Deliveries cancelled within 48 hours of delivery may be subject to cancellation charges. Recticel Customer Services will be able to confirm charges on request.

Special order items

- For unmanufactured products, no charges will apply.

- For products already manufactured, the full order value will be charged.
- For manufactured products in transit for delivery, the full order value plus handling and transport costs will apply.

Postponed deliveries

The storage charge will be £50 per trailer per day.

Refused deliveries

Refused deliveries will incur costs, including outbound delivery, return charges and Recticel handling fees.

Redirected deliveries

Deliveries that are redirected from the agreed delivery destination will incur charges. Recticel Customer Services will confirm these costs at the time of request.

Split deliveries

Recticel offers limited split deliveries on request, where possible.

- Up to 20 miles between deliveries, from £75
- Other distances POA

Delayed off-loading

Waiting time charges at £50 per hour pro-rata will apply if the delivery vehicle is not off-loaded within two hours of the requested delivery time.

E&OE

Recticel has made every effort to ensure the accuracy of this document and its content. However, the company reserves the right to amend in the event of error or omission.

For our full terms and conditions please visit:
www.recticel.com

Delivery options

Full-load deliveries on an articulated HGV curtainside trailer within normal business hours are made free of charge.

Other vehicle types and timed deliveries are available. Additional charges will apply. These are by agreement with a Recticel representative.

Special vehicle types available include: Rigid 18T, Rigid 7.5T, Moffett FLT offload Flat-bed trailer, Tail lift offload collections.

Collections in a suitable vehicle can be arranged from Recticel at Meir Park, Stoke-on-Trent between 9am and 4pm, Monday to Friday.

Customers will be given a time slot and reference number. The Recticel Customer Service team will provide information on this service as required.

Pallets which comprise a full load

To help with building a full load, we have provided a summary of how many pallets comprise a full load for each of the available pallet sizes. Depending on the product, and pallet size, the number of pallets in a full load varies. Please see below for full details (all sizes in mm.)

Pallet size: 2400 x 1200

FULL LOAD = 11 stacks

- Eurothane GP
- Eurothane Eurodeck

Pallet size: 1200 x 1200

FULL LOAD = 22 Stacks

- Powerdeck F
- Powerdeck U

Pallet size: 900 x 1200

FULL LOAD = 28 stacks

- Eurowall Cavity
- Eurowall +

Pallet size: 2400 x 1200

FULL LOAD = 22 stacks

- Eurothane PL
- Plylok

Eurothane GP to Eurowall Cavity vehicle fill ratio

	High cube vehicle	
	Eurothane GP stacks	Eurowall Cavity stacks
Full truck load calculation chart	11	0
	10	2
	9	5
	8	8
	7	10
	6	13
	5	16
	4	18
	3	21
	2	23
	1	26
0	28	

Regulations

The Building Regulations (England & Wales) and Building Standards (Scotland) are technical guidance to ensure that buildings are safe, energy efficient and comfortable to live in. They also ensure compliance with the performance requirements of the regulations.

For insulation manufacturers and our customers, the relevant regulation for England and Wales is Approved Document L (Conservation of fuel and power) or Part L as it is more commonly known, and this supports the energy efficiency requirements of the Building Regulations. For Scotland, guidance is provided by the Building Standards, specifically Section 6 (energy) of the Technical Handbooks.

These regulations determine the level of thermal insulation required when carrying out any building work, whether new build or renovation of dwellings (homes) or non-dwellings (mainly commercial buildings). There are requirements for U-values, a basic measure of heat transfer (thermal transmittance, units – W/m^2K) through the various construction elements (roof, wall, floor).

As we move towards zero carbon buildings, standards are becoming even more demanding and with the focus on fabric energy efficiency, there is greater need for continuous insulation, reduced thermal bridging, improved airtightness and lower U-values.

For new buildings, compliance with the regulations is assessed and demonstrated by calculations within software, Standard Assessment Procedure (SAP) for dwellings and Simplified Building Energy Model (SBEM) for non-dwellings. The software calculates the energy demand and likely CO_2 emissions for the building depending upon the design specifications. There are tables detailing the various U-value requirements depending on your location within the UK. Adopting the fabric first approach based on low U-values will put you on the right path to compliance.

For advice on U-values you can contact Recticel Technical Services team who are members of the BBA Competent Persons U-value scheme, and can provide calculations as a free of charge service. Alternatively, you can visit our website and access the online U-value calculator.

Glossary of terms

Breather membrane

A membrane with low resistance to the passage of moisture vapour, positioned on the outside of any insulation layers, usually to act as secondary weather protection behind tile and cladding finishes.

P/A ratio

Used in U-value calculations for ground floors, where the pattern of heat loss is different to other construction elements. 'P' refers to the length of the exposed perimeter (i.e. the length of floor abutting external walls and unheated spaces). 'A' is the total floor area to be insulated, and P is divided by A to give the ratio.

PIR

Polyisocyanurate (PIR) is a type of rigid foam insulation developed from polyurethane (PUR).

Thermal conductivity / lambda / K-value

A measure of how much heat energy a material allows to pass through it. It is a consistent property of the material, so a 25mm Eurothane GP board has the same 0.022 W/mK thermal conductivity as a 150mm Eurothane GP board.

Thermal resistance / R-value

Dividing the thickness of an insulation board (in metres) by its thermal conductivity gives the thermal resistance. The thicker the board, the higher the R-value. Can be used to find out comparative thicknesses of products with different thermal conductivities.

Thermal transmittance / U-value

Worked out by calculation, combining the thermal resistances of all materials and layers in a complete construction to determine the heat loss per square metre. As such, an insulation board does not have its own U-value as it depends how/where it is being used.

Vapour control layer (VCL)

A layer of high vapour resistance, positioned on the inside of any insulation layers, to restrict the passage of moisture vapour from inside a building. Should be continuous from one construction element to another, and not punctured for services to pass through. May be formed from polythene sheet, taped insulation board joints or foil backed plasterboard, and commonly acts as an airtightness layer as well.

FAQs

What quality standards do Recticel products meet?

Recticel Insulation prides itself on the quality of its product, particularly its dimensional stability and flatness. We consider the quality of our boards to be second to none. Recticel operates a Quality Management System in accordance with the requirements of BS EN ISO 9001:2015 and offers CE Marking to 'ISO EN 13165 - Thermal insulation products for buildings - Factory made rigid polyurethane foam (PU) products - Specification'.

How environmentally friendly is the production of Recticel PIR insulation?

Our boards are an extremely efficient form of insulation and over the life of a building, will save far more energy in their use than required in their production, resulting in significant reductions in energy consumption and cost, as well as reduced CO₂ emissions.

What is the BBA Competent Person Scheme?

The scheme, of which Recticel Insulation is a member, ensures consistency and accuracy in the provision of U-value calculations through a process of assessment, certification and continuous monitoring. Not all insulation manufacturers are members of the scheme.

Is a vapour control layer (VCL) required in a floor?

In addition to the damp proof membrane (normally a 1200-gauge polythene sheet below the insulation), a 500-gauge polythene VCL should be laid over the insulation. Where a concrete slab or a screed is to be poured on top, the VCL will also protect the foil face of the board from alkalis within the concrete, and stop poured concrete opening board joints and causing a thermal break.

What product can be used with underfloor heating?

Eurothane GP is compatible with underfloor heating systems. Clipping a wet system through the vapour control layer will not compromise the performance of the VCL or the insulation.

For more FAQs visit our website:

<https://www.recticelinsulation.com/en-gb/faqs-overview>


Recticel Insulation
Enterprise Way
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