

EU ISSUE 1  
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# Xtratherm®

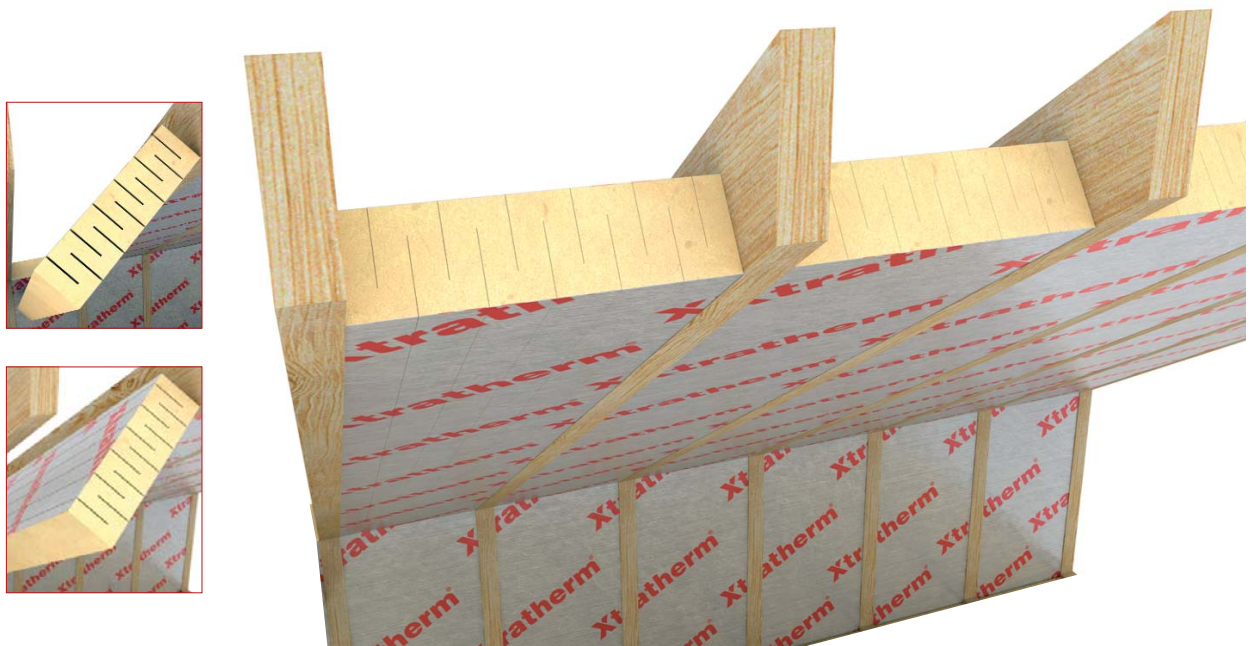
## High performance PIR pitched roof insulation

# Rafterloc®

WIDTH VARIABLE PITCHED ROOF BOARD

XT/RL

[www.xtratherm.eu](http://www.xtratherm.eu)



More than insulation



Quality

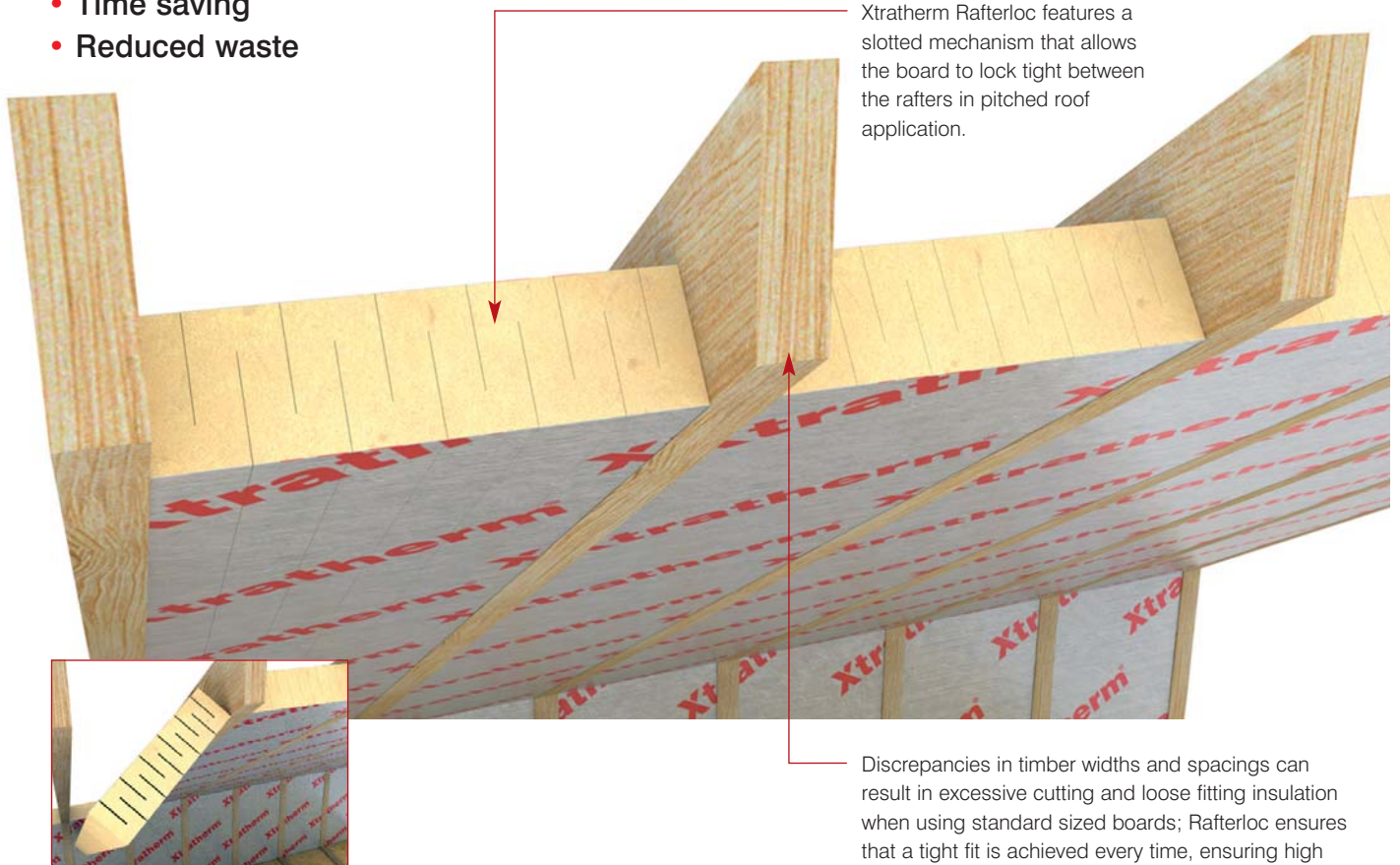
Environmental



# Rafterloc<sup>®</sup> Pitched Roof Board XT/RL

- Variable width feature
- Simple to fit
- Time saving
- Reduced waste

Xtratherm Rafterloc features a slotted mechanism that allows the board to lock tight between the rafters in pitched roof application.



Discrepancies in timber widths and spacings can result in excessive cutting and loose fitting insulation when using standard sized boards; Rafterloc ensures that a tight fit is achieved every time, ensuring high performance robust detailing.

Xtratherm Rafterloc Pitched Roof Insulation boards have a unique width variation feature offering a 20-30mm adjustment margin to ensure a tight fitting, high performance insulation locked between rafters.

Used in conjunction with a layer of Xtratherm XT/TL below or XT/PR onto the rafters, the Rafterloc system provides a robust, cost effective solution to insulating sloped rafters to the most efficient standards with minimal wastage and reduced fitting time.

## XTRATHERM XT/RL SHEET SIZE

DIMENSIONS	SIZE (mm)
Length	1200
Width	360 or 565
Thickness	50,75,100,125

*Other sizes are available subject to quantity and lead time.*

**Rafterloc** insulation board is fast and simple to use - ensuring a tight fit with excellent R-values and U-values.

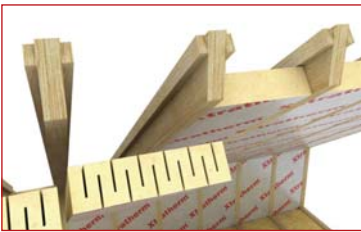
## Xtratherm XT/RL

Xtratherm XT product range is CFC/HCFC free (Zero Ozone Depletion Potential)

### TYPICAL PHYSICAL CHARACTERISTICS

PROPERTY	UNITS
Density (Foam Core)	>28 Kg/m <sup>3</sup>
Compressive Strength	80 kPa
Thermal Conductivity	0.023 W/mK
Service Temperature	-50°C to +110°C

## Pitched Roof



Xtratherm Rafterloc foil faced boards are suitable for use in pitched roof constructions where the insulation follows the slope of the roof.

Because of Xtratherm's high thermal performance, a single layer of Xtratherm Rafterloc placed between the rafters only, may achieve the U-value requirement; however, with the requirements for very low U-values, and the fact that thermal bridging should be addressed, a two layer solution is generally required. A second layer of Xtratherm XT/PR Pitched Roof Board should be placed below or onto the rafter to provide an 'Accredited Detail'. Refer to product guides for ventilated, warm pitched and hybrid roofs in Xtratherm XT/PR literature for guidance.

The Xtratherm Rafterloc features a slotted mechanism that allows the board to lock between the rafters in application. Discrepancies in timber widths and spacings can result in excessive cutting and loose fitting insulation when using standard sized insulation board; Rafterloc ensures that a tight fit is achieved.

## Installation Guidelines

### Pitched Roof Insulation: RAFTERLOC

#### Single Layer System

Following completion of roof cladding, fix timber battens to the inner face of rafters to provide a ground for fixing the Rafterloc. Position battens at a depth sufficient to allow insulation to sit flush with the underside of the rafters whilst maintaining the ventilation gap. The recommended 50mm airspace between the insulation and sarking felt may be reduced to 25mm when used in conjunction with an approved permeable roof tile underlay. If required, the Xtratherm Rafterloc can be cut with a trimming knife to fit areas that are closer than the standard spacing. The board should be cut accurately to facilitate tight fitting. Care should be taken to avoid thermal bridging at roof-wall junctions at eaves, gable walls and party walls. Complete installation as described to vertical studding and ceiling collars. A suitable vapour control layer should be fixed to the underside of the rafters at this stage. Finish with plasterboard.

#### Double Layer System

Place Rafterloc boards as described under Single Layer. A second layer of insulation should be added beneath the rafters. Xtratherm XT/PR Pitched Roof Board should be butted tightly against adjoining panels and temporarily fixed to the underside of the rafter with large headed clout nails. A suitable vapour control layer should be provided. Finish with plasterboard.

Alternatively an additional layer may be added in the form of Xtratherm Thin-R XT/TL Thermal Liner, which allows a composite panel of high performance Polyiso and plasterboard to be applied in a single fixing operation.

### TYPICAL 'U' VALUES and 'R' VALUES

XT/RL Pitched Roof Insulation Board		
Thickness (mm)	Ud-Value (W/m <sup>2</sup> K)	Rd-Value (m <sup>2</sup> K/W)
50	0.46	2.17
60	0.38	2.60
70	0.32	3.04
80	0.28	3.47
90	0.26	3.91
100	0.23	4.34

*Rd and Ud values given are for insulation material only, for comprehensive calculations on all roof types and including any fixings contact Xtratherm Technical Support.*

### TOLERANCE

DIMENSIONS	SIZE (mm)	TOLERANCE
Length	1200	+/- 5mm
Width	360 or 565	+/- 3mm
Thickness	50,75,100,125	+/- 3 mm

The Xtratherm range of high performance insulation boards provides the complete solution for newbuild and refurbishment.

## Thin-R® Pitched Roof



### XT/PR

Effective insulation of sloped roof area  
Reduced insulation thickness  
Reduces thermal bridging  
Minimizes intrusion into living area

*Suitable for insulating:*

**Ventilated Pitched Roof**  
**Warm Pitched Roof**  
**Hybrid Pitched Roof**

## Thin-R® Pitched Roof



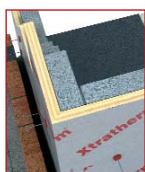
### XT/RL

Effective insulation of Rafter area  
Width Variable  
Reduced fitting time  
Minimizes intrusion into living area

*Suitable for insulating:*

**Ventilated Pitched Roof**  
**Warm Pitched Roof**  
**Hybrid Pitched Roof**

## Thin-R® Cavity Wall



### XT/CW

Robust tongue & groove jointing  
Clear cavity maintained  
Corner & reveal panels  
Low emissivity foil facings  
High thermal performance

*Suitable for insulating:*

**Partial Fill Cavity Walls**

## Thin-R® Thermal Liner



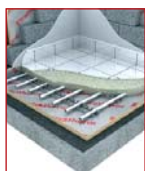
### XT/TL Plasterboard

High thermal performance  
Drylining & insulation in one fix  
Shorter drying time  
Responsive insulation system

*Suitable for insulating:*

**Masonry Walls**  
**Sloped Rafters**  
**Ceilings**

## Thin-R® Under Floor



### XT/UF

High thermal performance  
Suitable for under floor heating  
Reduced insulation thickness  
High compressive strength

*Suitable for insulating:*

**Solid Concrete Floors**  
**Suspended Concrete Floors**  
**Suspended Timber Floors**

### Technical Support

The Xtratherm Technical Support team provide a single point of contact to offer assistance on a wide range of issues for both the Designer and Builder and can be contacted by phone, fax or e-mail. Full details of all Xtratherm products, along with full technical literature can be downloaded from the website or requested by e-mail at:

**[www.xtratherm.eu](http://www.xtratherm.eu)**  
**[info@xtratherm.eu](mailto:info@xtratherm.eu)**

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