

Xtratherm®

More than insulation.

High performance roof insulation board

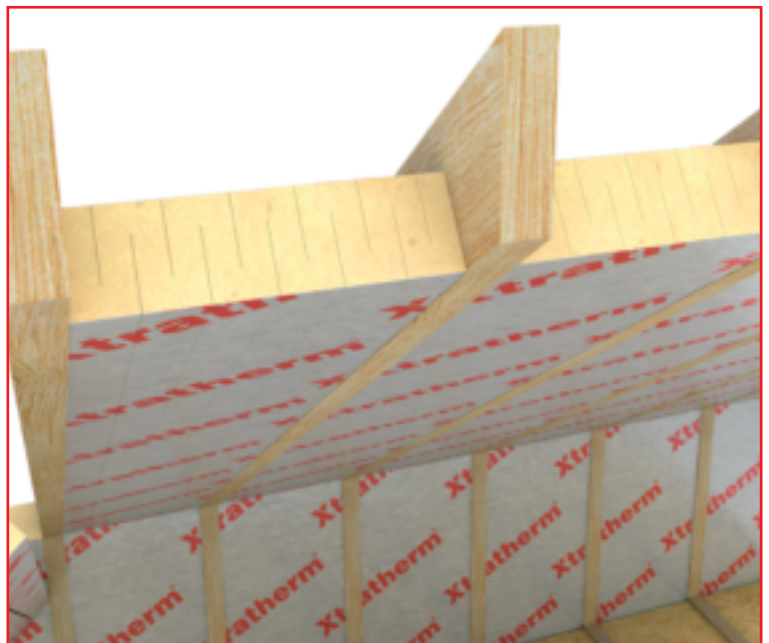
Rafterloc

WIDTH VARIABLE PITCHED ROOF BOARD

- Variable Width Feature
- Minimal intrusion into living area
- Reduced thermal bridging
- Low Emissivity Foil Facings
- Extra Thermal Performance

The 40% improvement in energy efficiency standards required by the recent revision of Building Regulations in Ireland has demanded better insulation U-values to be achieved with better detailing to ensure improved performance.

**Now Available in
75, 100, 125 & 150mm**

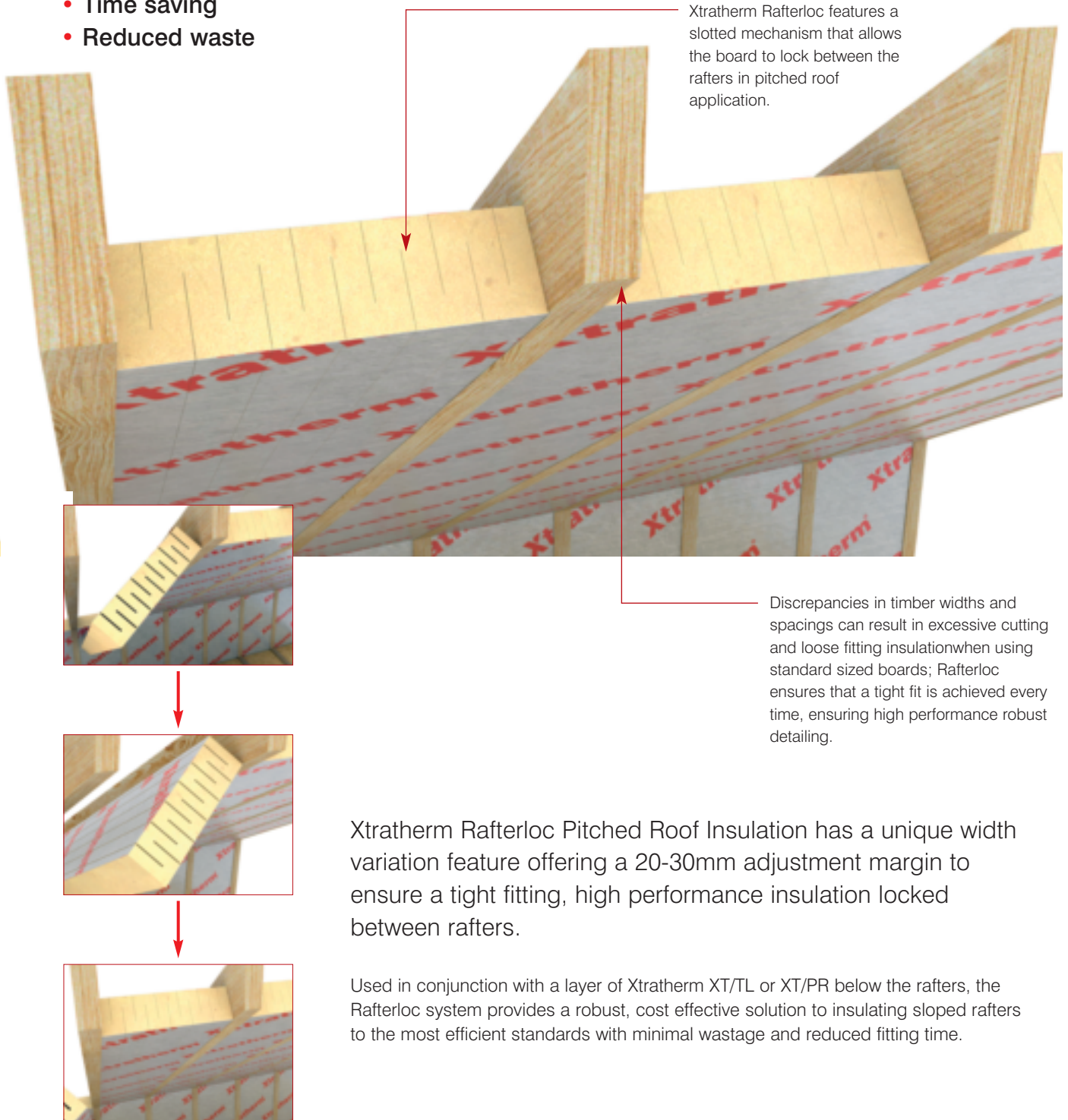


Efficient fabric insulation - Lower energy demand



Rafterloc Pitched Roof Board XT/RLOC

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



Xtratherm Rafterloc features a slotted mechanism that allows the board to lock 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 has 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 or XT/PR below 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 Rafterloc insulation board is fast and simple to use - ensuring a tight fit with excellent U-values.

Xtratherm XT/RLOC

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

Pitched Roof

Xtratherm Rafterloc boards are 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 the rafter to provide an 'Accredited Detail'. Refer to product guides for ventilated 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.

Technical Information

Property	Unit	
Density (Foam Core)	(Kg/m ³)	30-32
Water Vapour Resistivity	(MNs/gm)	>100
Thermal Conductivity	(W/mK)	0.023

Dimensional Table

Dimension	Size (mm)
Length	1200
Width	370
Thickness	75, 100, 125, 150

Rafterloc Installation Guidelines

Single Layer

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.

Typical U-value

Typical U-values using Rafterloc between Rafters @ 400mm centres					
Rafterloc Thickness	Thickness below Rafters				
	30mm	40mm	50mm	60mm	70mm
75mm	0.23	0.21	0.19	0.18	0.16
100mm	0.20	0.18	0.17	0.16	0.15
125mm	0.18	0.16	0.15	0.14	0.13
150mm	0.16	0.15	0.14	0.13	0.12

Unvented sloped roof, rafters at 400mm centres - approved vapour permeable membrane required, maintain 25mm void.

XT/TL Thermal Laminate may be used to underside (Add thickness of plasterboard) Thickness of Xtratherm below rafters Rafterloc Thickness.

Thermal Resistance

Thermal Resistance R-values expressed m ² K/W	
Typical Values	
XT/RLOC Rafterloc	R-Value
75	3.26
100	4.35
125	5.43
150	6.52

Pack Specifications

XT/RLOC Thickness	Sheets per pack	m ² per pack 370mm
75mm	14	6.13
100mm	10	4.44
125mm	8	3.55
150mm	8	3.55

Double Layer System Installation

A second layer of insulation should be added beneath the rafters. 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 Thermal Liner XT/TL, which allows a composite panel of high performance Polyiso and plasterboard to be applied in a single fixing operation.

Specification Clause

Thin-R XT/RLOC Rafterloc Pitched roof insulation at rafter level. The pitched roof insulation shall be Xtratherm Thin-R XT/RLOC ___ mm thick manufactured to EN ISO 9001:2000 by Xtratherm comprising a CFC/HCFC free rigid Polyisocyanurate (PIR) core between low emissivity foil facings. The pitched roof insulation shall be installed in accordance with instructions issued by Xtratherm. Refer to NBS clause P10 140, K11 695, K11 55

Standards

Xtratherm Rafterloc is manufactured under quality systems approved under EN ISO 9001:2000 and its use is covered by BBA Certificate 07/4402.

Cutting

Xtratherm Thin-R Boards can be readily cut using a sharp knife or fine toothed saw.

Electrical Services

When running electric cables within insulation, advice given in the BRE publication "Thermal insulation: avoiding risks" and BS 7671: 2001 should be followed.

Durability

Xtratherm Thin-R is stable, rot proof and durable. It will remain an effective insulant for the life of the building.

Availability

Xtratherm Thin-R is available through Merchants and Distributors throughout the UK and Ireland. For the location of your nearest stockist contact Xtratherm.

Packaging

Xtratherm Thin-R is wrapped in polythene packs and each pack is labeled with details of grade/type, size and number of pieces per pack.

Handling & Storage

Xtratherm Thin-R should be stored off the ground, on a clean, flat surface and must be stored under cover. The polythene wrapping of an Xtratherm Thin-R pack is not considered adequate protection for outside exposure.

Health & Safety

All Xtratherm products are safe to use and chemically inert. A Health & Safety information sheet is available from the Xtratherm Technical Support Department.

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 web site at:

www.xtratherm.com

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

Thin-R Sloped Roof Insulation



XT/PR

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

Thin-R Sloped Roof Insulation



XT/RLOC

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

Thin-R Flat Roof Thermal Ply



XT/TP

Insulation & decking in one fix
For new & refurbishment roofs
Rapid weather proofing

Thin-R Partial Fill Cavity Wall Insulation



XT/CW

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

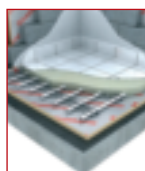
Thin-R Insulation for Drylining Walls



XT/TL-MF

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

Thin-R Under Floor Insulation



XT/UF

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

Xtratherm®



Certificate No: 07/4402



Zero Ozone Depletion Potential

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