

Xtratherm[®]

More than insulation



Guide to Insulated Dry Lining

www.xtratherm.com

Home energy use is responsible for over a quarter of our carbon dioxide (CO₂) emissions which contribute significantly to climate change. Insulating our homes effectively is the single most important factor in improving the energy efficiency of our buildings.

Whether you are upgrading an existing property or building new, the addition of an insulated thermal lining to the inside of a wall, roof slope or ceiling will dramatically improve the energy efficiency standards in your home. This guide explains how to achieve ultimate performance when using Xtratherm thermal liners, giving recommended specifications and installation guidelines to installers, either professional or DIY.

Why Insulate?

- Increased comfort for the occupiers of the properties.
- Reduced energy costs for occupiers and increased affordability through reduced energy use and lower energy bills.
- Reduced CO₂ emissions, which benefits the environment.

Benefits of Xtratherm Thermal Liners

- Optimum performance from a thinner board.
- Cost-effective.
- External wall appearance maintained.
- Easy to install.
- Readily available from your local builders merchant.



Contents

- 04 Identifying your wall type
- 06 Adhesive Fix (Dot & Dab)
Xtratherm thermal liner adhesive fix to wall
- 08 Mechanical Fix 1
Xtratherm between and over battens
- 10 Mechanical Fix 2
Xtratherm thermal liner on battens
- 12 Mechanical Fix 3
Xtratherm thermal liner on metal furring system
- 14 Mechanical Fix 4
Xtratherm PIR directly on to wall, then service void between timber battens.
- 16 Mechanical Fix 5
Xtratherm Liners directly to wall.
- 18 Xtratherm Liners for rafters and ceilings.

The following guidance on energy performances is indicative only of the wall designs illustrated. Contact Xtratherm for specific calculations and condensation risk analysis. Xtratherm accepts no liability for errors, omissions or claims arising from the use of information within this guide.



Thermal Linings

Fixing methods for new and existing walls

Xtratherm thermal linings can be fixed in a number of ways, including mechanically fixing or adhesive systems. These include fixing to timber battens or framing and metal furring systems. Or adhesively fixed using proprietary systems and traditional dot & dab bonding.

Whilst most new walls are suitable for dry-lining, the condition of the existing walls must be properly assessed – and any necessary remedial work undertaken to ensure that the walls are dry, clean and free from any protrusions. Older walls, depending on the build quality and the materials used to build them, may lend themselves to different methods of fixing to ensure that the thermal laminates can be fixed successfully.



Mechanically Fixed

In many instances, older walls are not suitable for dot and dab application because they present an uneven surface. In such situations, the application of thermal liners using a mechanically fixed system onto timber framing/battens or a metal furring system might be appropriate to provide a level surface. Xtratherm Thermal Liners can also be mechanically fixed directly onto an even wall.



Direct Bonding - Dot & Dab

Xtratherm supply a range of Thermal Liners with tri-laminate paper facings specifically to accept adhesive type fixing systems such as dot & dab. Adhesive bonding of the Thermal Liners can be made to most masonry surfaces if the walls are plumb and in good condition. Existing plastered walls that are in good condition will also accept the adhesive dabs, any painted surface should be sanded back and treated with a PVA adhesive before applying adhesive dabs. Ribbons of adhesive should be placed around all wall edges and all openings and services on the wall to provide a fire stop and avoid air movement behind the thermal laminates.

General

All walls should be assessed as to whether they are suitable for dry-lining, refer to BS 5628:Part 3 2001 Code of

Practice for use of masonry materials and components design and workmanship for guidance on resistance to weather. All liners should be fixed to walls that are dry - if there is a possibility of moisture ingress, the erection of an independent internal wall is recommended. All boards should be secured to the wall with a minimum of two fire proof fixings.

Consideration should be given as to where heavy fixtures such as radiators, kitchen units or sinks might be located. Timber fixing battens should be installed within the insulation layer to carry them. Avoid running electrical cables within the insulation layer, consult your electrician for guidance if this is unavoidable.

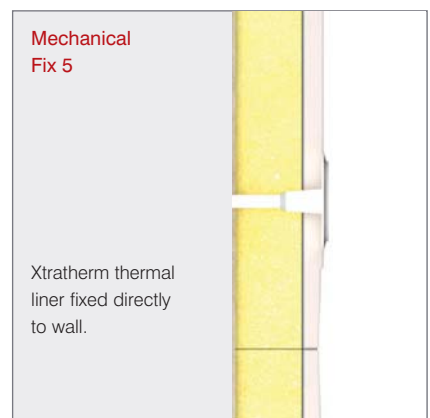
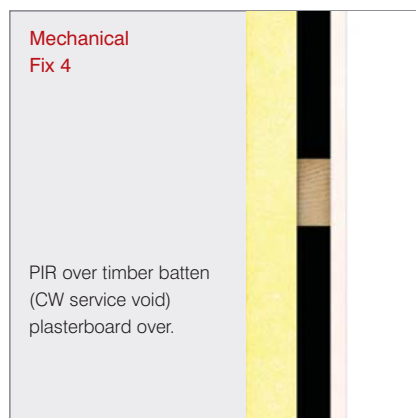
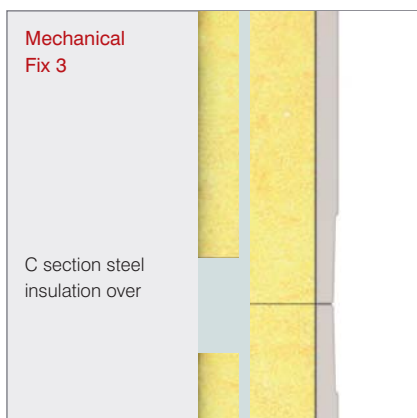
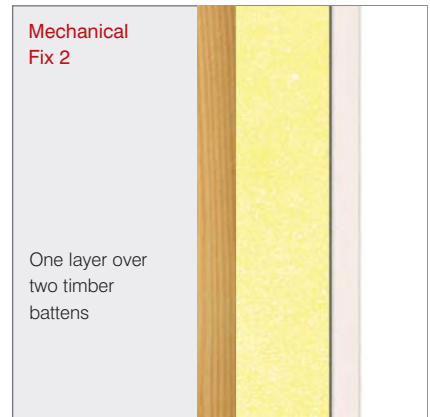
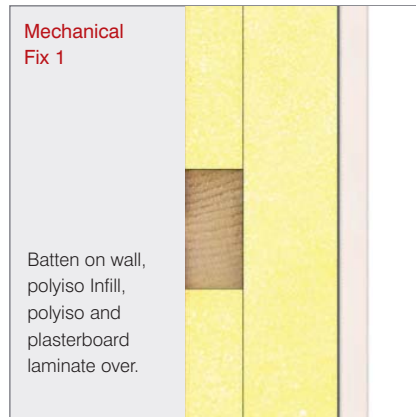
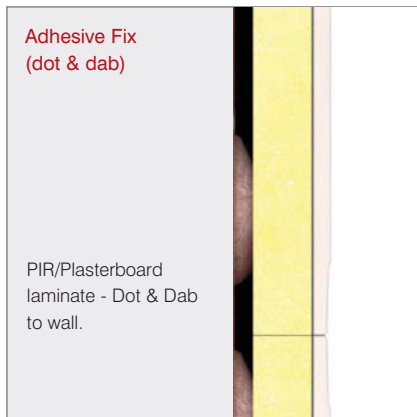
The insulation thickness at window & door reveals can be reduced to an adequate thickness to prevent thermal bridging and condensation. Care should be taken to ensure that adequate ventilation is retained in the rooms into which the thermal liners are being applied. Using the correct thickness of insulation, and the design and use of the heating and ventilation system correctly will avoid the occurrence of surface condensation.

Xtratherm Technical can provide interstitial condensation risk reports for you. The resistivity of the plasterboard surfaces can be increased by the application of two coats of British Gypsum Drywall Sealer, if required.

FIXING METHODS FOR INTERNAL WALL FACINGS



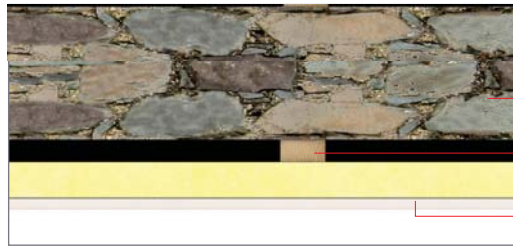
Fixing Type	Fixing Method	Stone	Brick	Block	Plaster
Adhesive Fix (dot & dab)	PIR/Plasterboard laminate - Dot & Dab to wall	✗	✓	✓	✓
Mechanical Fix 1	Batten on wall > PIR Infill > PIR and Plasterboard laminate over	✓	✓	✓	✓
Mechanical Fix 2	Timber Batten on wall > PIR and Plasterboard laminate over	✓	✓	✓	✓
Mechanical Fix 3	Proprietary Metal Furring System – Thermal Liner Over (Optional fibre between)	✓	✓	✓	✓
Mechanical Fix 4	PIR Directly to wall > Timber Batten over (with service void) > Plasterboard over	✗	✓	✓	✓
Mechanical Fix 5	Xtratherm Thermal Liner fixed directly to wall	✗	✓	✓	✓





Wall Types & U-values

Solid Stone



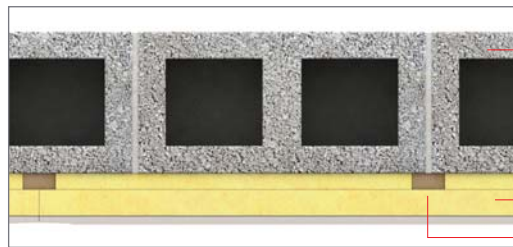
- Stone wall
- Vertical Timber Batten
- Xtratherm Thermal Lining Board

Solid Brick



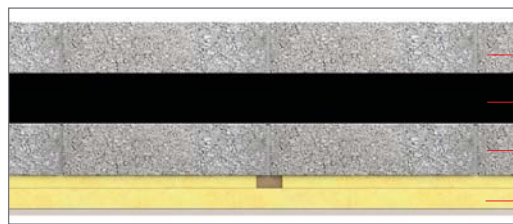
- Brick wall
- Adhesive Dab
- Xtratherm Thermal Lining Board

Hollow Concrete Block



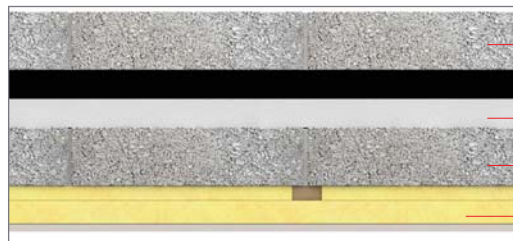
- Hollow Core Concrete Block
- Xtratherm Thermal Lining Board
- Vertical Timber Batten

Concrete Block (no cavity insulation)



- Concrete Block
- No insulation in cavity
- Concrete Block
- Xtratherm Thermal Lining Board

Concrete Block (Partial fill EPS in cavity)



- Concrete Block
- EPS insulation in cavity
- Concrete Block
- Xtratherm Thermal Lining Board

U VALUES EXPLAINED

The following pages gives fixing procedures, specifications and indicative U-value calculations for each fixing scenario against different wall types. U-values are calculated to EN6946 in accordance with conventions laid in BR443. For specific U-value calculations and condensation risk reports contact Xtratherm Technical Support.

Xtratherm XT/TL on and 40mm	
Thickness Over (mm)*	25
Brick 225mm	0.34
Stone 600mm	0.34
Hollow block	0.35
Cavity wall unfilled	0.33
Cavity wall 40mm EPS	0.24

U-values shown here



Thermal Lining

Dot & Dab Fix

Xtratherm Thermal Liner Dot & Dab adhesive fix.

The traditional method of 'Dot & Dab' fixing is suitable for application to brick, block or concrete masonry walls, either solid or cavity, using gypsum adhesive or proprietary adhesive systems. If proprietary systems are used, instructions should be sought from system supplier.



FIXING PROCEDURE

Xtratherm XT/TL is tri-laminate paper faced to accept adhesive - Foil Faced insulation is not suitable for plaster adhesive bonding.

Align the XT/TL Thermal Liner squarely on wall. Allow a 15mm expansion joint at the top and bottom of the panel. Mark the position of the panel on the wall.

Apply adhesive dabs to the wall in accordance with BS8212:1986 & BS 800: Part 8: 1994.

Place vertical dabs @ 300mm cs, 25mm in from edge. Dabs should be approx 50-75mm wide and 25mm deep to allow for tamping. Total contact with boards area should be 20%.

Ensure a 50mm continuous ribbon top and bottom and around any openings to provide firestops, and to achieve predicted U-value and airtightness performance. (See accredited details)

Place Xtratherm Thermal Liner into position using lifting wedges on floor. Tap board into position using a straight edge. Insulation should be cut back to accommodate an adjoining panel at external corners.

When the adhesive has dried, 2 mechanical fixings (fireproof) should be located along the centre of the board. Setting out and planning is essential.

Max installation height for this system is 3m.

SPECIFICATION

The insulated dry lining wall insulation shall be Xtratherm XT/TL 12.5 mm plasterboard bonded to ___ mm CFC/HCFC free rigid Polyisocyanurate (PIR) with a lambda value of 0.023 W/mK manufactured to ISO 9001:2000 by Xtratherm. The insulated dry lining plasterboard XT/TL shall be adhesively fixed to wall in accordance with instructions issued by Xtratherm. Refer to NBS clause K10 205.

U VALUES

Xtratherm adhesively fixed to wall - (Dot & Dab)						
Thickness Over (mm)*	25	30	40	50	60	70
Brick 225mm	0.58	0.51	0.42	0.35	0.31	0.27
Stone 600mm	-	-	-	-	-	-
Hollow block	0.59	0.52	0.43	0.36	0.31	0.27
Cavity wall unfilled	0.55	0.49	0.40	0.34	0.30	0.26
Cavity wall 40mm EPS	0.34	0.32	0.28	0.25	0.23	0.21
Cavity wall 60mm EPS	0.29	0.27	0.24	0.22	0.20	0.18

*Insulation thickness only



1 Align the XT/TL Thermal Liner squarely on wall. Allow a 15mm expansion joint at the top and bottom of the panel. Mark the position of the panel on the wall.



2 Trowel a continuous ribbon of adhesive around all wall edges, openings and service penetrations in accordance with BS8212:1986 & BS 800: Part 8: 1994.



3 Place Xtratherm Thermal Liner into position using lifting wedges on floor. Tap board into position using a straight edge. Insulation should be cut back to accommodate an adjoining panel at external corners.



4 Vertical dabs @ 300mm cs 25mm in from edge. Dabs 50-75mm wide approx 25mm deep to allow for tamping. Total contact with boards area should be 20%.



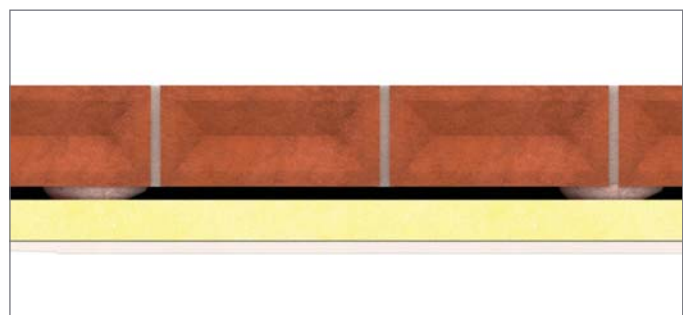
5 Ensure a 50mm continuous ribbon top and bottom and around any openings to provide firestops, and to achieve predicted U-value and airtightness performance. (See accredited details)



6 When the adhesive has dried, 2 mechanical fixings (fireproof) should be fixed through the centre of the board. Setting out and planning is essential.



Tap board into position using a straight edge. Insulation should be cut back to accommodate an adjoining panel at external corners.



For full technical details on this product visit our website:

www.xtratherm.com



Thermal Lining

Mechanical Fix 1

Xtratherm Thermal Liner on battens - with additional Xtratherm in between.

Placing battens onto a wall, either new or existing allows uneven walls to be made level. Filling that void with additional insulation improves the U-value.

FIXING PROCEDURE

Ensure wall is dry, clean and free of protrusions.

Place treated timber battens around wall edges, openings and service penetrations to provide a fire stop.

Fix battens to wall at max. 600mm centres. Use fillet pieces to ensure level surface.

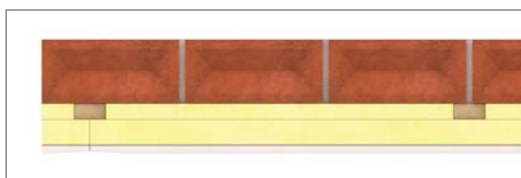
Tightly fit 40mm Xtratherm between battens.

Place Xtratherm Thermal Liner in position using lifting wedges on floor. Insulation should be cut back to accommodate an adjoining panel at corners.

Screws should be fixed to the timber batten at 150mm centres, at least 12mm in from the board edge. The fixings should penetrate at least 25mm into the batten.

Seal any gaps with sealant, and fill and tape joints in accordance with good drylining practice.

Fix skirting board.



SPECIFICATION

The insulated dry lining wall insulation shall be Xtratherm XT/TL (MF) 12.5 mm plasterboard bonded to ___mm CFC/HCFC free rigid Polyisocyanurate (PIR) with a lambda value of 0.023 W/mK manufactured to ISO 9001:2000 by Xtratherm. The insulated dry lining plasterboard XT/TL (MF) shall be mechanically fixed to battens with -----mm Xtratherm XT/PR between, in accordance with instructions issued by Xtratherm. Refer to NBS clause K10 205

U VALUES

Xtratherm XT/TL(MF) on and 40mm between timber battens								
Thickness Over (mm)*	25	30	40	50	60	70	80	90
Brick 225mm	0.34	0.32	0.28	0.25	0.22	0.20	0.19	0.17
Stone 600mm	0.34	0.31	0.27	0.25	0.22	0.20	0.19	0.17
Hollow block	0.35	0.32	0.28	0.25	0.23	0.21	0.19	0.17
Cavity wall unfilled	0.33	0.31	0.27	0.24	0.22	0.20	0.18	0.17
Cavity wall 40mm EPS	0.24	0.23	0.21	0.19	0.18	0.16	0.15	0.14
Cavity wall 60mm EPS	0.21	0.21	0.19	0.17	0.16	0.15	0.14	0.13

*Insulation thickness only



1 Ensure wall is dry, clean and free of protrusions.



2 Place treated timber battens around wall edges, openings and service penetrations.



3 Fix battens to wall at min. 600mm centres. Use fillet pieces to ensure level surface.



4 Tightly fit 40mm Xtratherm between battens.
The insulation thickness can be reduced at reveals.



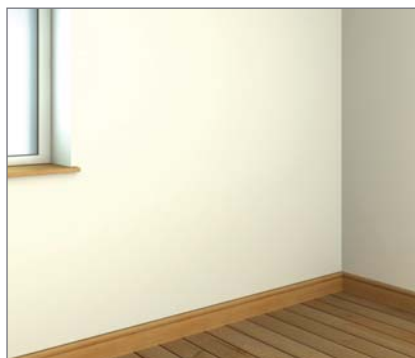
5 Place Xtratherm Thermal Liner in position using lifting wedges on floor. Insulation should be cut back to accommodate an adjoining panel at external corners.



6 Screws should be fixed to the timber batten at 150mm centres, at least 12mm in from the board edge. The fixings should penetrate at least 25mm into the batten.



7 Seal any gaps with sealant, (floor detail) and fill and tape joints in accordance with good drylining practice.



8 Fix skirting board.



Screws should be fixed to the timber batten at 150mm centres, 12mm in from the board edge and should penetrate at least 25mm into the batten.

For full technical details on this product visit our website:

www.xtratherm.com



Thermal Lining

Mechanical Fix 2

Xtratherm Thermal Liner on battens.

Placing battens onto a wall, either new or existing allows uneven walls to be made level and provides a void to carry services.



FIXING PROCEDURE

Ensure wall is dry, clean and free of protrusions.

Place treated timber battens around wall edges, openings and service penetrations to provide a fire stop. Battens should allow for min. 20mm support of liner on all edges.

Fix battens to wall at max. 600mm centres. Use fillet pieces to ensure level surface.

Place Xtratherm Thermal Liner in position using lifting wedges on floor. Insulation should be cut back to accommodate an adjoining panel at corners.

Screws should be fixed to the timber batten at 150mm centres, at least 12mm in from the board edge. The fixings should penetrate at least 25mm into the batten.

Seal any gaps with sealant, and fill and tape joints in accordance with good drylining practice.

Fix skirting board.

SPECIFICATION

The insulated dry lining wall insulation shall be Xtratherm XT/TL (MF) 12.5 mm plasterboard bonded to ___mm CFC/HCFC free rigid Polyisocyanurate (PIR) with a lambda value of 0.023 W/mK manufactured to ISO 9001:2000 by Xtratherm. The insulated dry lining plasterboard XT/TL (MF) shall be mechanically fixed to battens in accordance with instructions issued by Xtratherm. Refer to NBS clause K10 205



When using metal furring systems, contact the manufacturer for instructions.

U VALUES

Xtratherm XT/TL(MF) on timber battens								
Thickness Over (mm)*	25	30	40	50	60	70	80	90
Brick 225mm	0.46	0.42	0.35	0.31	0.27	0.24	0.22	0.20
Stone 600mm	0.45	0.41	0.35	0.30	0.27	0.24	0.22	0.20
Hollow block	0.47	0.43	0.36	0.31	0.27	0.25	0.22	0.20
Cavity wall unfilled	0.44	0.40	0.34	0.30	0.26	0.24	0.21	0.20
Cavity wall 40mm EPS	0.30	0.28	0.25	0.23	0.21	0.19	0.17	0.16
Cavity wall 60mm EPS	0.26	0.24	0.22	0.20	0.18	0.17	0.16	0.15

*Insulation thickness only



1 Ensure wall is dry, clean and free of protrusions.



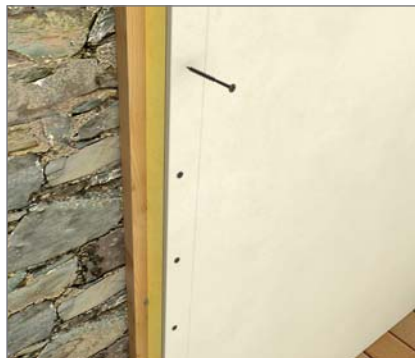
2 Place treated timber battens around wall edges, openings and service penetrations. Battens should allow for min. 20mm support of liner on all edges.



3 Fix battens to wall at min. 600mm centres. Use fillet pieces to ensure level surface.



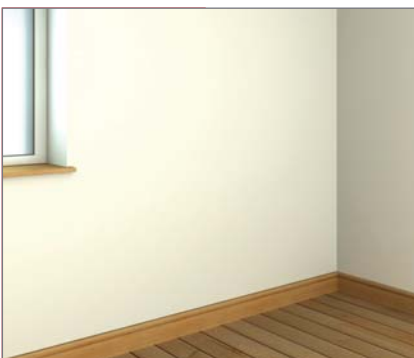
4 Place Xtratherm Thermal Liner in position using lifting wedges on floor. Insulation should be cut back to accommodate an adjoining panel at corners.



5 Screws should be fixed to the timber batten at 150mm centres, at least 12mm in from the board edge. The fixings should penetrate at least 25mm into the batten.



6 Seal any gaps with sealant, (Floor detail) and fill and tape joints in accordance with good drylining practice.



7 The insulation thickness can be reduced at reveals.

Fix skirting board.



For full technical details on this product visit our website:

www.xtratherm.com



Thermal Lining

Mechanical Fix 3

Xtratherm Thermal Liner on proprietary metal furring systems.

Placing metal furring onto a wall, either new or existing, allows uneven walls to be made level and provides a void to carry services.

FIXING PROCEDURE

Ensure with metal system manufacturer that the system is suitable for your wall type.

Fix metal frame system to the wall in accordance with the manufacturer's instructions. Sections should be placed around all wall edges and around openings and services.

Fix metal sections to wall at min. 600mm centres. Short pieces of section should be placed horizontally at midpoint of boards.

Place Xtratherm Thermal Liner in position using lifting wedges on floor. Insulation should be cut back to accommodate an adjoining panel at corners.

Fixings should be coated, self drilling and tapping type screws fixed through the thermal laminate at 150mm centres, at least 12mm in from the board edge. Do not over drive the fixings.

Seal any gaps with sealant, and fill and tape joints in accordance with good drylining practice.

Fix skirting board.



When using metal furring systems, contact the manufacturer for instructions.

SPECIFICATION

The insulated dry lining wall insulation shall be Xtratherm XT/TL (MF) 12.5 mm plasterboard bonded to ___mm CFC/HCFC free rigid Polyisocyanurate (PIR) with a lambda value of 0.023 W/mK manufactured to ISO 9001:2000 by Xtratherm. The insulated dry lining plasterboard XT/TL (MF) shall be mechanically fixed to metal furring system in accordance with system manufacturers instructions. Refer to NBS clause K10 205

U VALUES

Xtratherm XT/TL on metal furring system								
Thickness Over (mm)*	25	30	40	50	60	70	80	90
Brick 225mm	0.51	0.45	0.37	0.32	0.28	0.25	0.23	0.21
Stone 600mm	0.51	0.43	0.38	0.32	0.28	0.25	0.23	0.21
Hollow block	0.51	0.46	0.38	0.33	0.29	0.25	0.23	0.21
Cavity wall unfilled	0.48	0.43	0.36	0.31	0.27	0.24	0.22	0.20
Cavity wall 40mm EPS	0.31	0.29	0.26	0.23	0.21	0.19	0.18	0.17
Cavity wall 60mm EPS	0.27	0.25	0.23	0.21	0.19	0.17	0.16	0.15

*Insulation thickness only



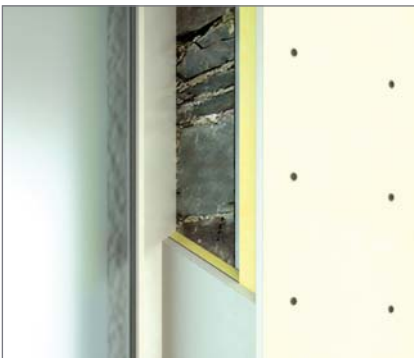
1 Ensure wall is dry, clean and free of protrusions.



2 Fix metal frame system to the wall in accordance with the manufacturer's instructions. Sections should be placed around all wall edges and around openings and services.



3 Fix metal sections to wall at min. 600mm centres. Short pieces of section should be placed horizontally at midpoint of boards.



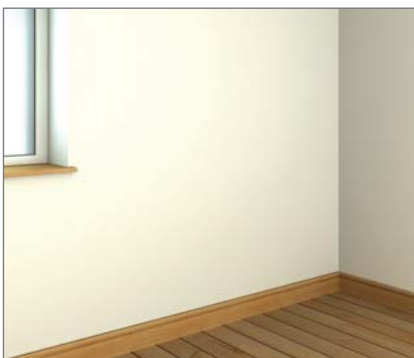
4 Place Xtratherm Thermal Liner in position using lifting wedges on floor. Insulation should be cut back to accommodate an adjoining panel at external corners.



5 Fixings should be coated, self drilling and tapping type. Screws fixed through the thermal laminate at 150mm centres, at least 12mm in from the board edge. Do not over drive the fixings.



6 Seal any gaps with sealant, (Floor detail) and fill and tape joints in accordance with good drylining practice.



7 Fix skirting board.



Fix metal frame system to the wall in accordance with the manufacturer's instructions.

For full technical details on this product visit our website:

www.xtratherm.com



Thermal Lining

Mechanical Fix 4

Xtratherm PIR directly on to wall, then service void between timber battens.

Placing Xtratherm insulation directly to an even wall allows for a timber batten fixing system to be placed behind the plasterboard to create an insulated service void.



FIXING PROCEDURE

Ensure wall is dry, clean and free of protrusions.

Temporarily fix Xtratherm insulation directly to wall, ensuring layer is continuous.

Tape joins with aluminium foil tape or apply separate vapour control layer.

Place a continuous fire stop of treated timber battens around wall edges, openings and service penetrations. Battens should allow for min. 20mm support of Plasterboard on all edges.

Screw fix timber battens at max. 600mm centres to wall through Xtratherm layer.

Plasterboard should be fixed with drylining screws to the timber batten at 150mm centres, at least 12mm in from the board edge. The fixings should penetrate at least 25mm into the batten.

Seal any gaps with sealant, and fill and tape joints in accordance with good drylining practice.

Fix skirting board.



SPECIFICATION

The insulated dry lining wall insulation shall be Xtratherm XT/GA ___mm CFC/HCFC free rigid Polyisocyanurate (PIR) with a lambda value of 0.023 W/mK manufactured to ISO 9001:2000 by Xtratherm. With battens mechanically fixed over insulation in accordance with instructions issued by Xtratherm. Refer to NBS clause K10 205.

U VALUES

Xtratherm directly to wall - service void between timber battens over								
Thickness Over (mm)*	25	30	40	50	60	70	80	90
Brick 225mm	0.46	0.42	0.35	0.31	0.27	0.24	0.22	0.20
Hollow block	0.47	0.43	0.36	0.31	0.27	0.25	0.22	0.20
Cavity wall unfilled	0.44	0.40	0.34	0.30	0.26	0.24	0.21	0.20
Cavity wall 40mm EPS	0.30	0.28	0.25	0.23	0.21	0.19	0.17	0.16
Cavity wall 60mm EPS	0.26	0.24	0.22	0.20	0.18	0.17	0.16	0.15

*Insulation thickness only



1 Ensure wall is dry, clean and free of protrusions.



2 Temporarily fix Xtratherm insulation directly to wall, ensuring layer is continuous.



3 Tape joints with aluminium foil tape or apply separate vapour control layer.



4 Place treated timber battens around wall edges, openings and service penetrations. Battens should allow for min. 20mm support of Plasterboard on all edges.



5 Screw fix timber battens at max. 600mm centres to wall through Xtratherm layer.

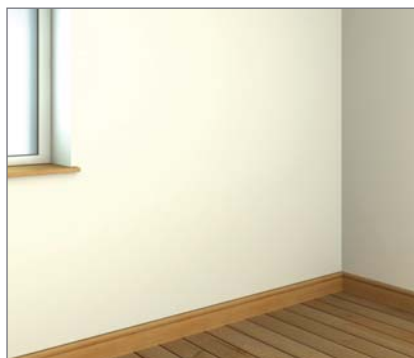
The insulation thickness can be reduced at reveals.



6 Plasterboard should be fixed with drylining screws to the timber batten at 150mm centres, at least 12mm in from the board edge. The fixings should penetrate at least 25mm into the batten.



7 Seal any gaps with sealant, (floor detail) and fill and tape joints in accordance with good drylining practice.



8 Fix skirting board.



Fill and tape joints in accordance with good drylining practice.

For full technical details on this product visit our website:

www.xtratherm.com



Thermal Lining

Mechanical Fix 5

Xtratherm Thermal Liner fixed directly to wall

When space is at a premium an option is to fix the thermal liner directly to the wall. The high performance to thickness ratio of Xtratherm ensures ultimate performance at minimal thicknesses.

FIXING PROCEDURE

Ensure wall is dry, clean and free of protrusions.

Place Xtratherm Thermal Liner in position using lifting wedges on floor, ensuring boards are square to the wall edges.

Insulation should be cut back to accommodate an adjoining panel at corners.

The thermal liner should be fixed directly to the wall with suitable mechanical fixings, in accordance with manufacturers recommended quantities and fixing patterns. Fixings should not lap of the edge of the boards. At least two of the fixings should be of a fire proof type. The fixings should penetrate at least 25mm into the wall.

Seal any gaps with sealant, and fill and tape joints in accordance with good drylining practice.

Fix skirting board.

SPECIFICATION

The insulated dry lining wall insulation shall be Xtratherm XT/TL(MF) 12.5mm plasterboard bonded to ___ mm CFC/HCFC free rigid Polyisocyanurate (PIR) with a lambda value of 0.023 W/mK manufactured to ISO 9001:2000 by Xtratherm. The insulated dry lining plasterboard XT/TL (MF) shall be mechanically fixed directly to wall in accordance with instructions issued fixing manufacturer. Refer to NBS clause K10 205



U VALUES

Xtratherm XT/TL (MF) directly to wall.								
Thickness Over (mm)*	25	30	40	50	60	70	80	90
Brick 225mm	0.62	0.54	0.44	0.37	0.32	0.28	0.25	0.22
Stone 600mm	-	-	-	-	-	-	-	-
Hollow block	0.64	0.56	0.45	0.38	0.32	0.28	0.25	0.23
Cavity wall unfilled	0.58	0.52	0.42	0.36	0.31	0.27	0.24	0.22
Cavity wall 40mm EPS	0.36	0.33	0.29	0.26	0.23	0.21	0.19	0.18
Cavity wall 60mm EPS	0.30	0.28	0.25	0.23	0.21	0.19	0.17	0.16

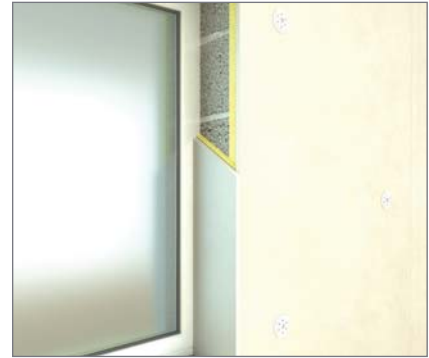
*Insulation thickness only



1 Ensure wall is dry, clean and free of protrusions.



2 Place Xtratherm Thermal Liner in position using lifting wedges on floor, ensuring boards are square to the wall edges.



3 Insulation should be cut back to accommodate an adjoining panel at external corners. Insulation thickness can be reduced at reveals.



4 The thermal liner should be fixed directly to the wall with suitable mechanical fixings, in accordance with manufacturers recommended quantities and fixing patterns. Fixings should not lap of the edge of the boards. At least two of the fixings should be of a fire proof type. The fixings should penetrate at least 25mm into the wall.



5 Seal any gaps with sealant, (floor detail) and fill and tape joints in accordance with good drylining practice.



6 Fix skirting board.



For full technical details on this product visit our website:

www.xtratherm.com

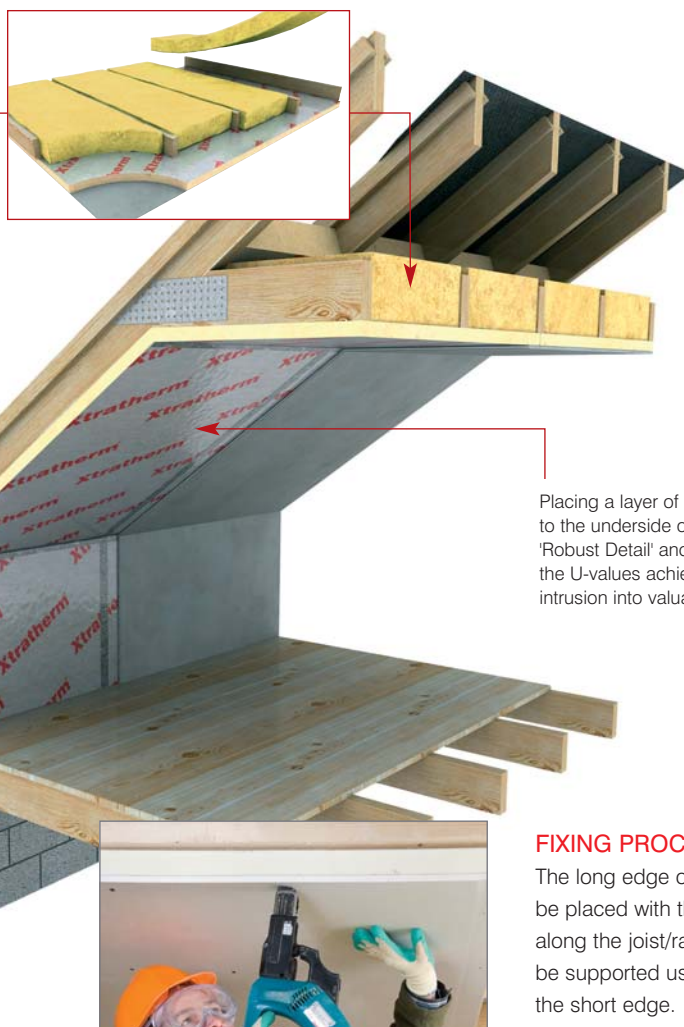


Thermal Liners to pitched roofs & ceilings

Xtratherm Thermal Liners can be used to line ceilings and the under side of sloped rafters in dormer roof constructions to achieve better U-values and provide Enhanced Accredited Detailing.

In a ceiling, typically fibre glass is placed between AND over the joists – this hides the top of the joist and may lead to health and safety concerns when the roof space is being accessed. An Xtratherm solution to covering the thermal bridge through the joists is to place a layer of Xtratherm to the underside of the joist before the plasterboard is fixed.

Additional fibre can be added above the joists when safe access is provided by the use of Xtratherm Loft Walk-R



Placing a layer of Xtratherm Thermal Liner to the underside of the rafter provides a 'Robust Detail' and substantially improves the U-values achieved, with minimum intrusion into valuable living space.

FIXING PROCEDURE

The long edge of the Thermal Liners should be placed with their long edge running along the joist/rafters, all board edge must be supported using nogging pieces along the short edge.

Minimum support of 20mm must be offered to all edges.

Dry wall screws should be used to fix the board, penetrating at least 25mm into the timber and placed at a min 10mm for the board edges. Fixings should be placed at 150mm along the board edge.



In a conventional ventilated roof a 50mm clear ventilation gap should be maintained between the insulation and the roofing felt. In certain instances when a vapour permeable membrane is used instead of standard roofing felt, the ventilation gap may be dispensed with.

Thermal Liner Sizes and availability

Xtratherm[®]
More than insulation

Xtratherm[®]

THERMAL LINER - TYPE XT/TL

XT/TL is an insulated panel of Xtratherm Polyiso (PIR) core with composite kraft paper facings, bonded to tapered edge plasterboard for internal applications. XT/TL is suitable for both direct adhesive bonding and mechanical fixed applications.

XT/TL 2400 x 1200mm		Availability Status		No. of Sheets per lift	No. of Lifts per pallet	No. of Sheets per pallet	m ² per pallet
Stock Code	O/A mm	A	B				
XT/TL 12.5*17	29.5		✓	30	2	60	172.80
XT/TL 12.5*25	37.5	✓		30	2	60	172.80
XT/TL 12.5*30	42.5	✓		25	2	50	144.00
XT/TL 12.5*38	50.5	✓		20	2	40	115.20
XT/TL 12.5*45	57.5		✓	20	2	40	115.20
XT/TL 12.5*50	62.5	✓		20	2	40	115.20
XT/TL 12.5*60	72.5	✓		15	2	30	86.40
XT/TL 12.5*70	82.5		✓	13	2	26	74.88

O/A (Overall Thickness) Total plasterboard plus insulation.

Xtratherm[®]

THERMAL LINER - TYPE XT/TL-MF

XT/TL-MF is an insulated panel of Xtratherm Polyiso (PIR) core with composite foil facings, bonded to tapered edge plasterboard for internal applications. **XT/TL-MF is only suitable for mechanical fixed applications.**

XT/TL-MF 2400 x 1200mm		Availability Status		No. of Sheets per lift	No. of Lifts per pallet	No. of Sheets per pallet	m ² per pallet
Stock Code	O/A mm	A	B				
XT/TL-MF 12.5*25	37.5	✓		30	2	60	172.80
XT/TL-MF 12.5*30	42.5	✓		25	2	50	144.00
XT/TL-MF 12.5*35	47.5		✓	25	2	50	144.00
XT/TL-MF 12.5*40	52.5	✓		20	2	40	115.20
XT/TL-MF 12.5*45	57.5		✓	20	2	40	115.20
XT/TL-MF 12.5*50	62.5	✓		20	2	40	115.20
XT/TL-MF 12.5*55	67.5		✓	15	2	30	86.40
XT/TL-MF 12.5*60	72.5		✓	15	2	30	86.40
XT/TL-MF 12.5*65	77.5		✓	15	2	30	86.40
XT/TL-MF 12.5*70	82.5		✓	13	2	26	74.88
XT/TL-MF 12.5*75	87.5		✓	13	2	26	74.88
XT/TL-MF 12.5*80	92.5		✓	12	2	24	69.12
XT/TL-MF 12.5*90	102.5		✓	10	2	20	57.60

O/A (Overall Thickness) Total plasterboard plus insulation.

Availability Status: Key

A	Available to order from manufactured stock.
B	Available subject to lead time 3-5 days*.

* Made to order time from receipt of written order confirmation.

THERMAL LINER SIZES

Length	Width	Plasterboard Thickness	Edge Profile
2400mm	1200mm	12.5mm	Tapered

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 email.

Full details of all Xtratherm products, along with full technical literature can be downloaded from our website at

www.xtratherm.com

General notes

General

Xtratherm thermal liners are a composite of tapered edge plasterboard bonded to PIR insulation. See tables for available sizes/thicknesses.

Cutting

Xtratherm Thermal Liners can be readily cut using a sharp knife and fine toothed saw. The insulation layer should not be chased to accommodate services.

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 products are stable, rot proof and durable. They will remain an effective insulant for the life of the building.

Availability

Xtratherm products are available through builder's merchants throughout Ireland and the UK. For the location of your nearest stockist contact Xtratherm.

Packaging

Xtratherm products are wrapped in polythene and each pack is labelled with details of grade/type, size and number of pieces per pack.

Handling & Storage

Xtratherm products should be stored off the ground, on a clean, flat surface and must be stored under cover. The polythene wrapping of an Xtratherm pack is not considered adequate protection for outside exposure. Manual handling of the liners should be carried out with due care to avoid unnecessary strain.

Health & Safety

All Xtratherm products are safe to use and chemically inert.

Condensation

The thermal insulation and ventilation requirements of national Building Regulations should be followed to reduce the risk of condensation and mould growth. Consideration, should be given to all measures to eliminate condensation, particularly in refurbishment projects.

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

Good workmanship and appropriate site procedures are necessary to achieve expected thermal and airtightness performance. The example calculations are indicative only. Default values for components and cavities have been used, for specific U-value calculations contact Xtratherm Technical Support. Comprehensive guidance on installation should be consulted. Xtratherm technical literature and Agrément certification is available for download on the Xtratherm website. The information contained in this publication is, to the best of our knowledge, true and accurate but any recommendations or suggestions which may be made are without guarantee since the conditions of use are beyond our control.

Xtratherm[®]



Zero Ozone
Depletion Potential



Xtratherm UK Limited
Park Road, Holmewood
Chesterfield, Derbyshire
S42 5UY

Tel: 0371 2221033
Fax: 0371 2221044
Email: info@xtratherm.com

XT/TL/Guide/U.K/0410-1