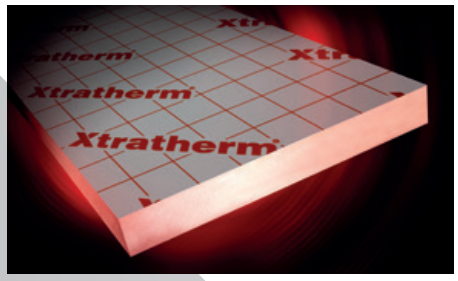
Thin-R

PIR
Insulation

XT/TL
Insulation for
Drylining Walls Fixed
with Adhesive Dabs

Walls



Xtratherm®
More than insulation

BBA APPROVAL INSPECTION TESTING CERTIFICATION
04/4130

NSAI
03/0183

Data Sheet

Thin-R PIR Insulation

XT/TL

Insulation for Drylining walls Fixed with Adhesive Dabs

Thin-R Thermal Liner Dot & Dab XT/TL is a composite insulated panel of Xtratherm PIR insulation core with a composite kraft facing bonded to 12.5mm tapered edge plasterboard for internal applications, fixed with proprietary adhesive bonding.

The composite kraft facing on both sides of XT/TL incorporates an integral vapour control layer, which helps to reduce the risk of condensation. XT/TL is designed to provide high levels of thermal insulation and drylining in one operation, providing the solution of choice in newbuild and renovation. Whether building new or upgrading, due consideration towards the energy efficiency of your home can have many benefits, including reduced energy costs and improved living conditions.

Specification Clause

The insulated drylining wall insulation shall be Xtratherm Thin-R XT/TL manufactured to EN 13950 by Xtratherm, comprising a rigid Polyisocyanurate (PIR) core between composite kraft facings.The XT/TL_ _ _mm with Agrément certified Lambda value of 0.022 W/mK (PIR only), bonded to 12.5mm plasterboard, to achieve a U-Value of_ _ _W/m^{2}K for the wall element. To be installed in accordance with instructions issued by Xtratherm.

Refer to NBS clause K10 205, K10 15, K10 245

NBS Plus

Thermal Resistances

Thickness (mm) PIR	Thickness (mm) Plasterboard	Overall Thickness (mm)	R-Value (m^{2}K/W)
25	12.5	37.5	1.20
38	12.5	50.5	1.75
50	12.5	62.5	2.30
60	12.5	72.5	2.75

Resistance 'R' Values

The resistance value of any thickness of material can be ascertained by dividing the thickness (in metres) by its lambda value, for example: Lambda 0.022 W/mk and PIR thickness 50mm -> 0.050/ 0.022 -> R-Value = 2.272. This is then added to the 12.5mm plasterboard resistance (0.066) to calculate the overall resistance of the composite board (2.27 +0.066) = 2.338. In accordance with EN 13950, R-Values should be rounded down to the nearest 0.05 (m^{2}K/W).

Xtratherm®

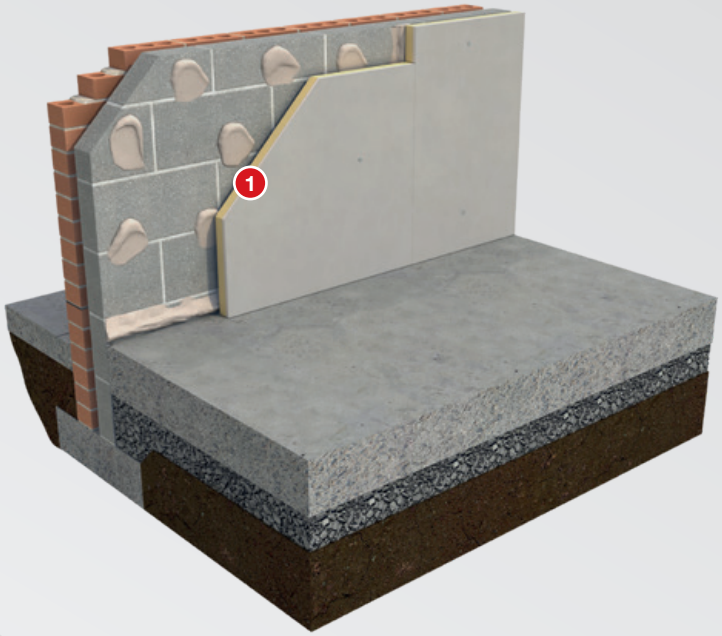
Insulation & Drylining in one Application

Provides Effective Vapour Control Layer

Reduced Insulation Thickness

Suitable for a Variety of Wall Types

Cost Effective Solution in Refurbishment and New Build



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Integral vapour control layer

The composite kraft facing on XT/TL provides a gas and vapour tight barrier, reducing the condensation risk. A continuous vapour control layer is created when the XT/TL joints are sealed and taped in accordance with drylining good practice.

Fire Stops

An important factor when drylining a wall is to provide fire stops along the top and bottom of each board and around all openings (doors, windows, etc). These are provided by the continuous ribbons of adhesive and prevent fire penetrating behind the insulation layer. These continuous ribbons of adhesive also help to prevent thermal looping, leading to an overall improved U-Value for the wall element.

XT/TL	
Length (mm)	2400 2438 (ROI only)
Width (mm)	1200
Thickness including plasterboard (mm)	37.5, 50.5, 62.5, 72.5

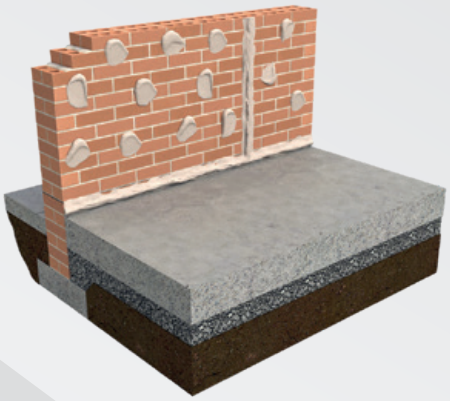
Other thicknesses may be available depending on minimum order quantity and lead time.

Property & Units	
Thermal Conductivity	0.022 (W/mK) (PIR only)
Reaction to Fire	Euroclass B s1 d0

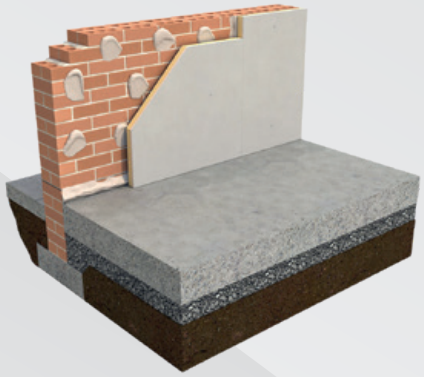
Xtratherm CE Declaration of Performance (DoP) for this product is available for download from our website.

Installation Guidelines

1. Ensure the wall is dry and free from any protrusions/wall paper etc.
2. Mark the position of XT/TL on the wall. Setting out and planning board positioning is essential.
3. Apply adhesive dabs to the wall in accordance with BS8212, ensuring a 50mm continuous ribbon of adhesive is created at the top and bottom of each board and around all openings. Follow adhesive manufacturer's guidelines. General recommendation is to apply vertical dabs at 300mm centres, 25mm in from the edge. Dabs should be 50-75mm wide and approximately 25mm deep to allow for tamping. Total contact with board area should be minimum 20%. Maximum height installation for this system is 3m.



4. Lift the XT/TL into position using wedges on the floor.
5. Align XT/TL squarely on wall. Apply pressure to the board to level and embed it into the adhesive. Allow a 15mm expansion joint at the top and bottom of the panel, and fill with foam filler. Insulation should be cut back to accommodate an adjoining panel at external corners. Joints should be tightly butted.
6. When the adhesive has dried, 3 mechanical fixings (thermally broken) should be fixed through the centre of the board.



7. Seal and tape the joints of XT/TL to ensure a the continuous vapour control layer is created.
8. Plaster skim to finish.

When upgrading existing properties, a professional should be engaged to assess the property for appropriate insulation treatments and effective detailing. Walls should be dry and decoration stripped back to the wall substrate. Appropriate ventilation strategies must be considered as part of the overall energy upgrade.

Guidance in PAS2030:2017 'Specification for the installation of energy efficiency measures (EEM) in existing buildings' and BS8212 Code of practice for dry lining and partitions should be consulted.

ACDs must be followed to ensure that installation is in accordance with current Building Regulations and accounted for in the energy calculation.

Handling, Cutting and Storage

Xtratherm

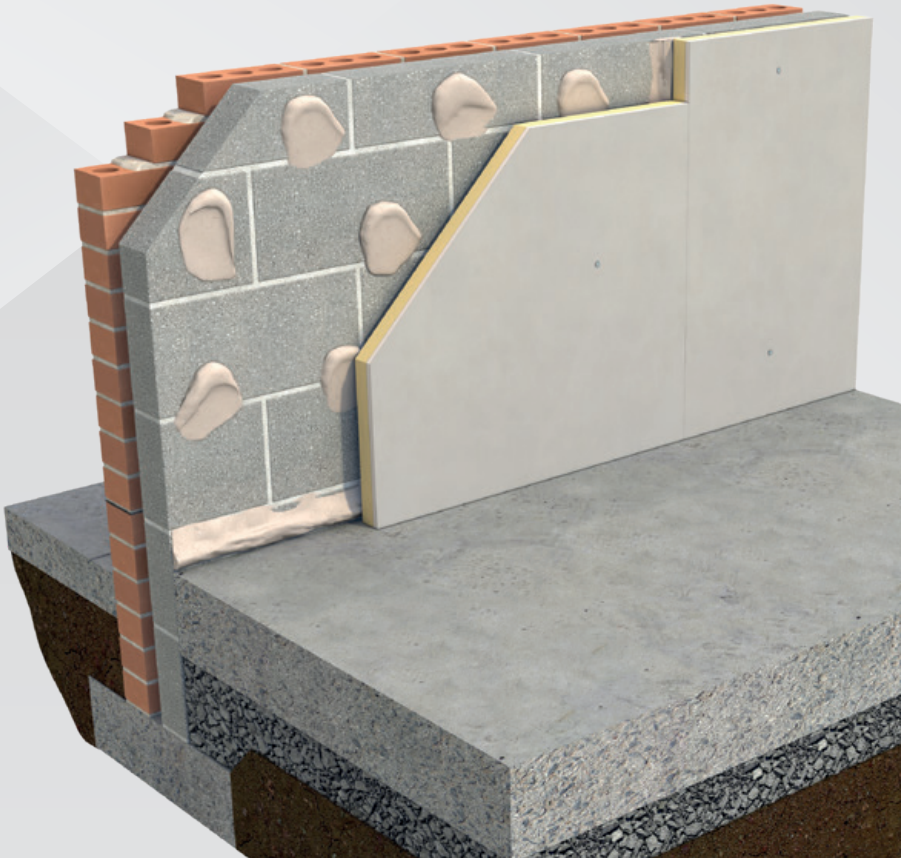
Xtratherm insulation should be stored off the ground, on a clean flat surface and must be stored under cover. The polythene wrapping is not considered adequate protection for outside exposure. Care should be taken to protect the insulation in storage and during the build process.

The insulation boards can be readily cut using a sharp knife or fine toothed saw. Ensure tight fitting of the insulation boards to achieve continuity of insulation as asked for within the ACDs. Appropriate PPE should be worn when handling insulation. Please refer to Health & Safety data sheets on our website.

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

Durability

Xtratherm products are stable, rot proof and will remain effective for the life span of the building, dependent on specification and installation. Care should be taken to avoid contact with acids, petrol, alkalis and mineral oil, when contact is made, clean materials in a safe manner before installation.



Thermal Performance

Typical U-Values

Table 1

U-Value calculations to EN ISO:6946

XT/TL

Thickness (mm)

Wall Type	50	60	70	80	90
300mm Clear Cavity Wall Brick/Block	0.33	0.29	0.25	0.23	0.21
215mm Hollow Block (External Render)	0.35	0.30	0.26	0.24	0.21
Cavity Wall Pumped Block & Block*	0.17	0.16	0.15	0.14	0.13

Pumped Bead @ 0.033 W/mK

Expect More KNOWLEDGE

At Xtratherm we understand the importance of giving our customers the best technical advice.

We have taken the unique industry step of training every one of our technical team that deals directly with our customers, to the highest industry standards of competency in U-value calculation and condensation risk analysis. We have Thermal Bridging covered also under the BRE/NSAI Thermal modelling competency scheme, using the most comprehensive 3D software available.

Our team and products are certified in the UK and Ireland and through the following certifications bodies:

- BRE Thermal bridging modelling competency certification
- NSAI Thermal modelling competency scheme
- TIMSA-BBA competency scheme for U-value calculation and condensation risk analysis
- BBA and NSAI certification of the Xtratherm insulation boards
- SAP and DEAP energy assessment

Our technical team can also provide:

- Thermal calculations
- Technical advice on building regulations in the UK and Ireland
- Technical papers on a variety of topics
- Certified CPDs
- BIM modelling
- NBS Specifications
- Educational resources for technical secondary and tertiary colleges

Please refer to the Resources section of our website for more details

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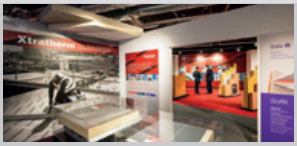
The Xtratherm Innovation Centre

The Xtratherm exhibition space and training academy has been developed to assist construction professionals in understanding the principles of specifying and achieving on-site, best practice insulation standards for new dwellings, commercial envelope solutions and refurbishment projects.




Get in touch

Dedicated Technical Team:
UK : 0371 222 1055
ROI: 046 906 6050

Thermal Calculations, Technical Advice or to arrange a technical visit:
info@xtratherm.com

Request a CPD:
cpd@xtratherm.com

Xtratherm®
More than insulation

The Sustainable Solution

Specifying Xtratherm is a real commitment to minimising energy consumption, harmful CO^2 emissions and their impact on the environment. Using our products is one of the most effective ways to reduce energy consumption – in fact, after just eight months the energy they save far outweighs the energy used in their production. In addition, our manufacturing facilities operate to an ISO 14001 certified Environmental Management System.

The BRE Green Guide

The 2008 Green Guide to Specification produced by the BRE gives Xtratherm Insulation products a rating of A or A+. Green Guide ratings are used to gain credits in BREEAM (BRE Environmental Assessment Method) for non-residential buildings, and under 'Mat 4 – Insulation' the first credit requires the building to have an Insulation Index of 2 or greater – only achievable if the weighted average rating of the insulation is A or A+. This shows that all our products have been made with materials that have been responsibly sourced. The standard sets out organisational governance, supply chain management and environmental and social aspects that are verified and ensure responsible sourcing of materials.

Responsible Sourcing

Xtratherm has BES 6001 certification for responsible sourcing. The second BREEAM credit under that category is based on responsibly-sourced materials – at least 80% of the total insulation used in roofs, walls, ground floors and services must meet any of tier levels 1 to 6 in the BREEAM table of certification schemes. Our Environmental Management System is certified under EN ISO 14001, and our raw materials come from companies with similarly-certified EMS (copies of all certificates are available for BREEAM assessments). This level of responsible sourcing meets tier level 6 in the BREEAM table.

Global Warming and Ozone Depletion

All Xtratherm Insulation products use CFC-and HCFC-free materials, and are manufactured using a blowing agent with a low GWP and zero ODP.

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

T + 44 (0) 371 222 1033
F + 44 (0) 371 222 1044

info@xtratherm.com

xtratherm.com

Xtratherm Limited
Liscarton Industrial Estate
Kells Road, Navan
Co. Meath, Ireland
C15 NP79

T +353 (0)46 906 6000
F +353 (0)46 906 6090

info@xtratherm.ie

xtratherm.ie

ISO 9001 | Quality Management Systems

ISO 14001 | Environmental Management Systems

Xtratherm, part of UNILIN group.

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