Thin-R
High Performance PIR

Engineered Jointing

Thermal Conductivity

Extensive Range

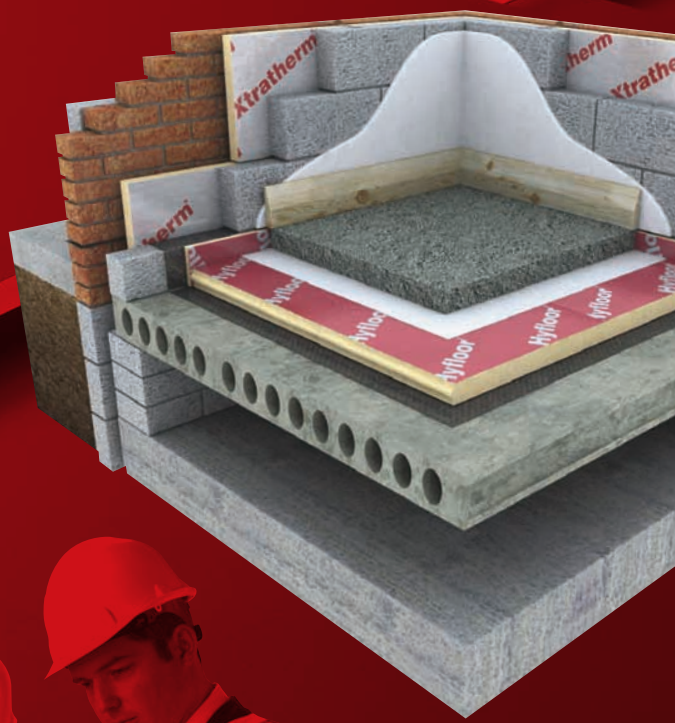
High Performance PIR Floor Insulation Board

Floors

XT/Hyfloor
T&G Floor Insulation

Key Features

- High Thermal Performance
- Certified Thermal Conductivity as Low as 0.022W/mK
- Robust Engineered Jointing
- HCFC/CFC free, GWP <5
- BRE Green Guide A+ Rated



BBA APPROVAL INSPECTION TESTING CERTIFICATION
08/4613

www.xtratherm.com

Xtratherm®
More than insulation

Thin-R | XT/HYF
T&G Floor Insulation

The route to Zero Carbon fabric performance will lead to innovation in building design and materials used. Xtratherm have developed Hyfloor T&G floor insulation as the answer to meeting the higher U-value performances required for floors – in a practical and robust manner.

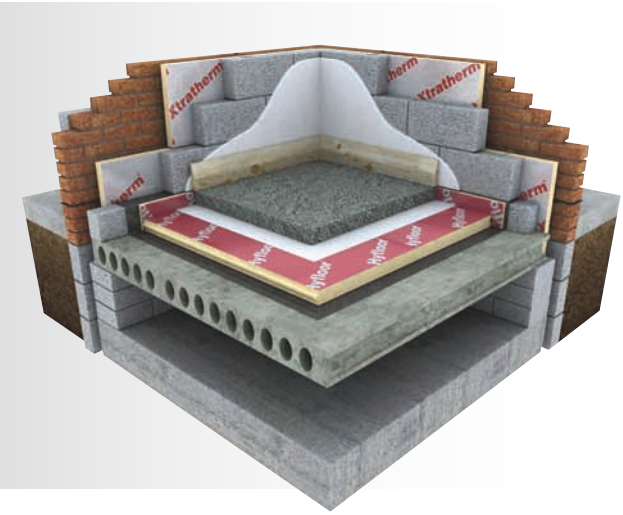
Confidence you can stand over

Hyfloor Under Floor Insulation has superior thickness to performance ratio allowing the lower targets required under the new Building Regulations to be achieved with minimum thicknesses.

- High Compressive Strength
- Achieves Zero Carbon Standards
- Thicknesses to tie in with brick coursing
- T&G jointing on all four edges
- Extra thermal performance
- Branded Boards

1
All floors should include a suitable damp proof membrane (A Radon Barrier doubles as a DPM). The DPM should seal with the DPC. The DPM should be laid onto a flat level surface. To prevent puncturing the membrane, a screening of sand or quarry dust should be laid before laying the DPM. Hyfloor should be laid with closely butted T&G joints, laid staggered with a break bonded pattern and fitted tightly at edges and around any service penetrations.

It is good practice to place a layer of polythene over any under floor insulation to act as a separating layer in accordance with the Good Building Guide GBG 45 'Insulating Ground Floors.'



2
Suspended floors must be ventilated from the underside. Ventilation should not be restricted by any supporting or sleeper walls used to support the floor system.

3
Detailing at wall/floor junctions is essential to reduce thermal bridging. By placing an upstand of Xtratherm Perimeter insulation 25mm thick around the external and internal wall/floor junctions, a robust detail is created.

4
Hyfloor provides the most efficient means of insulating a floor to the highest standards. Typical floors have a Perimeter/Area ratio of between 0.4 and 0.7 – Hyfloor will achieve U-values as low as 0.12 W/m2K in these floors.

Xtratherm Thin-R is a high performance foil faced Polyisocyanurate (PIR) insulation with a certified thermal conductivity as low as 0.022W/mK. Manufactured to strict EN 13165 standards, the closed cell structure and gas tight facings provides excellent thermal performance and moisture resistance. Thin-R is available with engineered jointing to provide improved continuity and unparalleled thermal bridging performance. Xtratherm Thin-R products deliver genuine thermally robust performances and are supported with full third party assurances throughout the range.

Property & Units
Density (Foam Core) 30 (Kg/m^3)
Compressive Strength >140 (kPa)
Water Vapour Resistivity >100 (MNs/gm)
Thermal Conductivity 0.022 (W/mK)
Service Temperature -20 to 100°c
Surface Spread of Flame Class 1

Xtratherm XT/HYF
Length (mm) 2400mm
Width (mm) 1200mm
Thickness 75, 100, 125, 140

Specification Clause

The floor insulation shall be Xtratherm Hyfloor T&G Floor Insulation ___mm thick manufactured to EN ISO 9001:2008 by Xtratherm, comprising a CFC/HCFC free rigid T&G Polyisocyanurate (PIR) core between gas tight facings. The floor insulation shall be installed in accordance with instructions issued by Xtratherm.

Xtratherm®
More than insulation

Hyfloor Under Floor Insulation XT/HYF

Hyfloor is an engineered T&G jointed high performance Under Floor Insulation consisting of a high performance rigid Polyisocyanurate (PIR) core with branded gas tight facings both sides, it has a thermal conductivity of 0.022W/mK.

Installation Guidelines

Below Floor Slab

Where Hyfloor Insulation is used below the floor slab, lay the hardcore in layers; min 150mm - max 225mm; each layer should be well compacted, with the surface blinded with quarry dust or sand to provide suitable surface for laying DPM.

A damp proof membrane e.g. 1200 gauge polythene or radon barrier should be laid over blinding with joints taped to prevent passage of ground moisture, it should be carried up the wall until it meets and seals with the DPC.

Engineered Jointing

Below Floor Screed
(Solid or Suspended)

Hylfoor Insulation can be used below the floor screed. The same procedure should be followed ensuring that the floor slab or beams onto which the insulation is being laid is level, a blinding of sand may be required.

The concrete floor over which the insulation is to be laid should be left as long as possible to maximise drying out, in accordance with BS8203: 1996 Section 3.1.2.

The minimum thickness of sand and cement screed is 65mm for domestic construction and 75mm for most other buildings. However, architectural specifications should be consulted.

U-values achieved using Hyfloor (W/m²k) UK				
P/A	0.40	0.50	0.60	0.70
Thickness	0.40	0.50	0.60	0.70
75	0.19	0.20	0.21	0.21
100	0.15	0.16	0.17	0.17
125	0.13	0.14	0.14	0.14
140	0.12	0.13	0.13	0.13

The above calculations are indicative only, for specific calculations contact technical support.

U-values achieved using Hyfloor (W/m²k) IRL				
P/A	0.40	0.50	0.60	0.70
Thickness	0.40	0.50	0.60	0.70
75	0.20	0.21	0.22	0.23
100	0.17	0.17	0.18	0.18
125	0.14	0.14	0.15	0.15
140	0.13	0.13	0.13	0.14

The (λ) lambda values and (R) resistance values stated are in accordance with the 90/90 principles as stated in the harmonised European Standard EN 13165: 2001. U-values are calculated in compliance with BS EN ISO 6946 (Combined method).

Length (m)	Width (m)	Thickness (mm)	Sheets Per Pack	M² Per Pack
2.400	1.200	75	4	11.52
2.400	1.200	100	4	11.52
2.400	1.200	125	3	8.64
2.400	1.200	140	2	5.76

Resistance 'R' Values

The resistance value of any thickness of Xtratherm PIR can be ascertained by simply dividing the thickness of the material (in metres) by it's agrèment declare lambda value 0.022 W/mk. eg 50mm = 0.050/0.022 = R2.27.

Standards
Xtratherm Thin-R range is manufactured to EN ISO 13165 under Quality Systems approved to EN ISO 9001:2008 Quality Management, EN ISO 14001:2004 Environmental Management and BS OHSAS 18001 Health and Safety Management System.

Storage
Xtratherm Thin-R 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.

Cutting
Xtratherm Thin-R 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 in accredited details.

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

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

Environmental
Xtratherm Thin-R is manufactured under ISO 14001:2004 Environmental Management with all major components sourced under 14001 accredited supplliers. It is manufactured without the use of CFC's or HCFC's and has Zero Ozone Depletion Potential with a GWP of less than 5. Thin-R has been awarded an A+ Rating under the BRE Green Guide.

Durability
Xtratherm Thin-R 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. Solvent based adhesive containing methyl ethyl ketone, should not be used.

ISO 9001 | Quality Management Systems
ISO 14001 | Environmental Management
OHSAS 18001 | Occupational Health & Safety

Thin-R

High Performance PIR

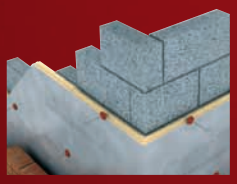
XT/HYF 06/12

Xtratherm Technical Services

All the members of our technical team are individually BBA accredited to help you reach your low energy goals. BBA qualified in U-value calculation, condensation risk and also Thermal Bridging 3D analysis backed by BRE accreditation – when you call Xtratherm, you can be assured you're speaking to a qualified person.

XT/CW (T&G)

Walls:
Insulation for Partial Fill Cavity Wall



XT/CWP

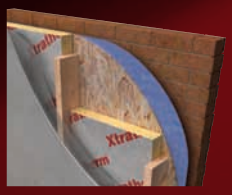
Walls:
Insulation with enhanced performance for Partial Fill Cavity Walls

XT/TL

Walls:
Insulation for Drylining walls Fixed with Adhesive Dabs

XT/TL-MF

Walls:
Insulation for Drylining walls Mechanically Fixed to Battens



XT/TF

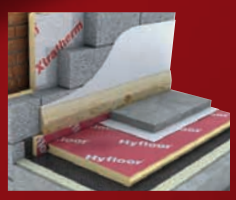
Walls:
Insulation for Timber Framed Walls

CT/PIR

Walls:
Full Fill Built-in Insulation for Traditional Build

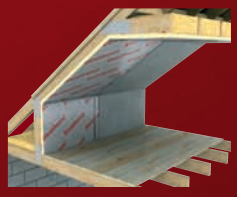
XT/UF

Floors:
Insulation for Ground Supported and Suspended Floors



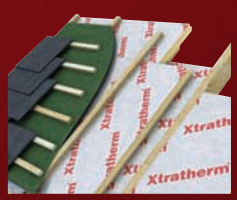
XT/HYF

Floors:
Insulation for Ground Supported and Suspended Floors with Engineered Jointing.



XT/PR

Roofs:
Insulation for Pitched Roofs



XT/SK

Roofs:
Insulation for Sarking (Warm Roof) Constructions with Engineered Jointing

Rigid Insulation

Flexible Solutions

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