Thin-R
High Performance PIR

High Strength

Thermal Conductivity

Extensive Range

High Performance PIR Floor Insulation Board

Floors

XT/UF

Insulation for Ground Supported and Suspended Floors

Key Features

- High Thermal Performance
- Certified Thermal Conductivity as Low as 0.022W/mK
- High Compressive Strength
- Low Emissivity Foil Facings
- HCFC/CFC free, GWP <5
- BRE Green Guide A+ Rated

BBA APPROVAL INSPECTION TESTING CERTIFICATION
08/4613

www.xtratherm.com

Xtratherm®
More than insulation

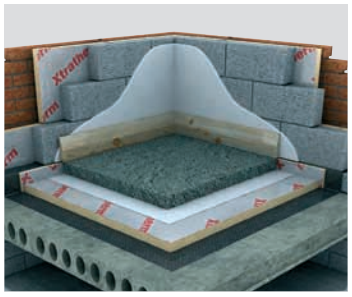
Thin-R | XT/UF Insulation for ground supported and suspended floors

The floor in any building is an area of considerable heat loss if it is not properly insulated. Xtratherm Thin-R XT/UF when installed within a floor structure, will significantly improve the U-value (Thermal Transmittance) of new or existing floors.

Under Floor Insulation

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

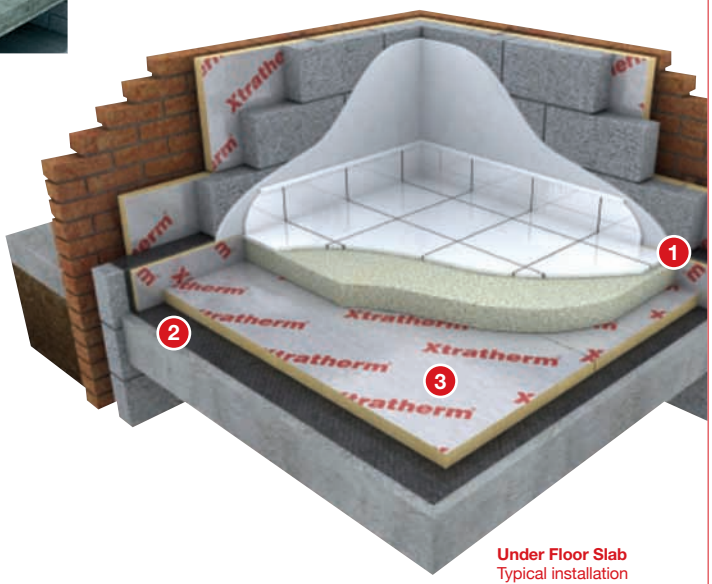
All suspended floors must be ventilated from the underside. Ventilation should not be restricted by any supporting or sleeper wall used to support the floor system.



Under Floor Screed
Typical installation

1

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.



Under Floor Slab
Typical installation

XT/UF with Under floor heating.

2

All floors should include a suitable damp proof membrane (A Radon Barrier doubles as a DPM). The DPM should seal with the DPC. The DPC should be laid onto a flat level surface. To prevent puncturing the membrane, a screening of sand or cement dust should be laid before laying the DPC.

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'

3

Xtratherm XT/UF provides the most efficient means of insulating a floor.
It has the strength and thermal properties required to reach the high performance U-values asked for in the Building Regulations. Xtratherm Thin-R XT/UF should be laid with closely butted joints, laid staggered with a break bonded pattern and fitted tightly at edges and around any service penetrations.

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. 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/UF	
Length (mm)	2400
Width (mm)	1200
Thickness (mm)	25, 30, 35, 40, 50, 60, 65, 70, 75, 90, 100, 110, 125, 150

Specification Clause

The floor insulation shall be Xtratherm Thin-R XT/UF _ _ _ mm thick manufactured to EN ISO 9001:2008 by Xtratherm, comprising a CFC/HCFC free rigid Polyisocyanurate (PIR) core between low emissivity foil facings. The floor insulation shall be installed in accordance with instructions issued by Xtratherm. Refer to NBS clause E20 200, E20 30.

Xtratherm®
More than insulation

Installation Guidelines

Solid Under Floor

Lay the hardcore in layers 150mm min/ 250mm max and compact well.

Blind surface with quarry dust/sand to provide level surface.

Place DPM eg. 1200g polythene or Radon Barrier over blinding, tape joints to prevent passage of ground moisture.

Carry DPM up wall to meet and seal with DPC.

Lay the Xtratherm XT/UF boards in staggered jointed pattern.

Closely butt all edges.

Place Xtratherm floor upstand around floor perimeter to provide Robust detail.

Seal around any service penetrations. Layer a polythene vapour control layer min 0.125mm thick over the insulation with 150mm lap joints.

Lay concrete slab to the correct thickness.

Below floor screed

Follow the same procedure as above.

Leave the concrete subfloor, (over which the insulation is to be laid), as long as possible to dry out. RE BS 8203:1996

Lay screed to specification over concrete slab.

UK Solid Floor

Typical U-values XT/UF

Perimeter/Area Ratio (PA)

	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00	Target U-value
Thickness (mm)	25	40	50	55	55	60	65	65	65	**0.25**
U-value	**0.24**	**0.25**	**0.24**	**0.24**	**0.25**	**0.25**	**0.24**	**0.25**	**0.25**	**0.25**
Thickness (mm)	30	50	60	65	70	70	75	75	80	**0.22**
U-value	**0.22**	**0.22**	**0.22**	**0.22**	**0.22**	**0.22**	**0.22**	**0.22**	**0.21**	**0.22**
Thickness (mm)	40	60	65	75	80	80	90	90	90	**0.20**
U-value	**0.20**	**0.20**	**0.20**	**0.20**	**0.20**	**0.20**	**0.19**	**0.19**	**0.20**	**0.20**
Thickness (mm)	75	90	100	110	115	115	120	120	120	**0.15**
U-value	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**

IRL Solid Floor

Typical U-values XT/UF

Perimeter/Area Ratio (PA)

	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00	Target U-value
Thickness (mm)	35	50	55	60	65	65	70	70	70	**0.25**
U-value	**0.25**	**0.24**	**0.25**	**0.25**	**0.25**	**0.25**	**0.24**	**0.25**	**0.25**	**0.25**
Thickness (mm)	45	60	65	70	75	80	80	80	80	**0.22**
U-value	**0.22**	**0.22**	**0.22**	**0.22**	**0.22**	**0.22**	**0.22**	**0.22**	**0.21**	**0.22**
Thickness (mm)	55	70	75	80	90	90	90	90	90	**0.20**
U-value	**0.20**	**0.20**	**0.20**	**0.20**	**0.19**	**0.20**	**0.19**	**0.19**	**0.20**	**0.20**
Thickness (mm)	90	110	110	115	120	120	125	125	125	**0.15**
U-value	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**

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 declared 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.

Thin-R

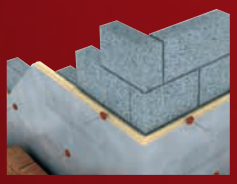
High Performance PIR

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

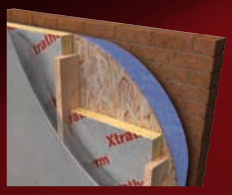
Walls:
Insulation with enhanced performance for Partial Fill Cavity Walls

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

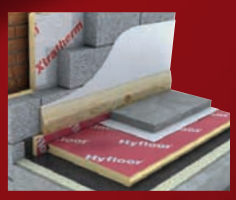
Walls:
Insulation for Timber Framed Walls

CT/PIR

Walls:
Full Fill Built-in Insulation for Traditional Build

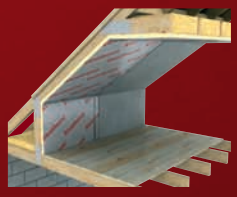
XT/UF

Floors:
Insulation for Ground Supported and Suspended Floors



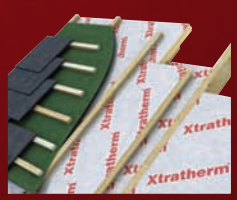
XT/HYF

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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