

Engineered Jointing

Enhanced Conductivity

Extensive Range

## Extra Performance Cavity-Plus Insulation Board

# Walls

### **XT/CWP** (T&G)

Insulation with enhanced performance for Partial Fill Cavity Walls

#### Key Features

High Thermal Performance

Certified Thermal  
Conductivity 0.021W/mK

Robust  
Engineered Jointing

Low Emissivity Foil Facings

HCFC/CFC free, GWP <5

BRE Green Guide A+ Rated



Cavity-Plus  
**X021**  
Xtratherm



[www.xtratherm.com](http://www.xtratherm.com)

# Xtratherm®

More than insulation

# Thin-R | XT/CWP (T&G) Insulation with enhanced performance for Partial Fill Cavity Walls

Xtratherm Thin-R/CWP (T&G) is the best solution when designers/regulations demand higher U-value performance in external masonry walls. Xtratherm Thin-R Cavity Plus boards achieve these higher standards whilst maintaining a residual cavity-the most effective protection against the ever more prevalent wind driven rain. The outstanding performance of Xtratherm Cavity Plus allows these goals to be achieved without a substantial increase in the overall wall thickness.

Low emissivity foil with a cavity resistance value of 0.665

Outstanding thermal performance

Robust tongue & groove jointing

Pre-formed corner panels

Clear cavity maintained

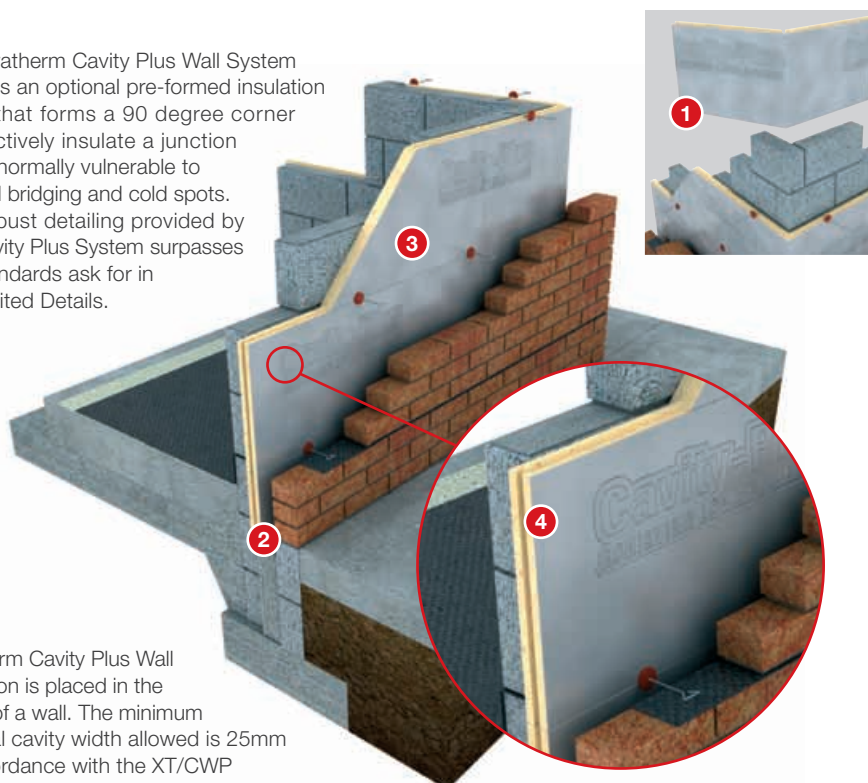
**1**  
The Xtratherm Cavity Plus Wall System includes an optional pre-formed insulation panel that forms a 90 degree corner to effectively insulate a junction that is normally vulnerable to thermal bridging and cold spots. The robust detailing provided by the Cavity Plus System surpasses the standards ask for in Accredited Details.

**2**  
Xtratherm Cavity Plus Wall insulation is placed in the cavity of a wall. The minimum residual cavity width allowed is 25mm in accordance with the XT/CWP BBA certificate 08/4613.

The Low emissivity foil facing on Xtratherm boards improve the thermal resistance of the residual cavity to a certified value of 0.665.

**3**  
Innovation by Xtratherm have improved the insulation performance of the Cavity Plus foam core. The Lambda value of 0.021 W/mK achieves the most efficient value available for rigid foam insulation.

**4**  
Xtratherm provide a Tongued and Grooved jointing system that results in a more robust, continuous layer of cavity wall insulation that minimises the threat of thermal bridging through inaccurate installation.



Xtratherm Thin-R is a high performance foil faced Polyisocyanurate (PIR) insulation with a certified thermal conductivity as low as 0.021W/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)  
28-32 (Kg/m<sup>3</sup>)

Compressive Strength  
>120 (kPa)

Water Vapour Resistivity  
>100 (MNs/gm)

Thermal Conductivity  
0.021 (W/mK)

Service Temperature  
-20 to 100 (°C)

Surface Spread of Flame  
Class 1

## Xtratherm XT/CWP

Length (mm)  
1200

Width (mm)  
450

Thickness (mm)  
50, 60, 70, 80, 100 (T&G)

*Other sizes are available subject to quantity & lead time.*

## Specification Clause

The partial fill cavity wall insulation shall be Xtratherm Thin-R XT/CWP\_ \_ \_ mm thick, with a lambda value of 0.021 WmK manufactured to EN ISO 9001:2000 by Xtratherm, comprising a CFC/HCFC free rigid Polyisocyanurate (PIR) core between low emissivity foil facings. The wall insulation shall be installed in accordance with instructions issued by Xtratherm. Refer to NBS clause F30 155, F30 12.

## Installation Guidelines

Insert wall ties max 600mm centres one block course below DPC.

Secure cavity boards tight against inner leaf with retaining clip on approved wall ties.

Ensure a minimum 25mm residual cavity is maintained. This may have to be increased to suit conditions. (e.g. NHBC)

Place wall ties at max 900x450 centres each board secured with a minimum of 3 wall ties.

Ensure block joints are fully bonded with unbroken mortar.

Fix wall ties 225mm vertically and 150mm horizontally from face of unbonded jambs.

Ensure wall ties (Cavity) are kept clean of mortar and are sloped towards outer leaf. A cavity board should be used to keep cavity clean.

Xtratherm corner boards may be fitted to provide improved detailing and thermal bridging results.

Full certified thermal bridging PSI values based on the accredited details are available, contact Xtratherm Technical Support.



### Typical U-values XT/CWP

Block Lambda	50mm	70mm	100mm
<b>0.14</b>	0.25	0.20	0.16
<b>0.51</b>	0.28	0.22	0.17
<b>1.15</b>	0.29	0.22	0.17

### Typical U-values XT/CWP

+50mm XT/TL Thermal Laminate

Block Lambda	50mm	70mm	100mm
<b>0.14</b>	0.17	0.15	0.12
<b>0.51</b>	0.18	0.16	0.13
<b>1.15</b>	0.19	0.16	0.13

Calculation includes min 25mm residual cavity, with 2.5 S/S wall ties per m<sup>2</sup>. \*38mm PIR insulation on adhesive dabs. The additional internal lining will improve resultant thermal bridging  $\psi$  values. Accredited details should be followed to ensure expected performance.

### 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 suppliers. 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



### CT/PIR

#### Walls:

Full Fill Built-in Insulation for Traditional Build



### XT/CWP

#### Walls:

Insulation with enhanced performance for Partial Fill Cavity Walls



### XT/UF

#### Floors:

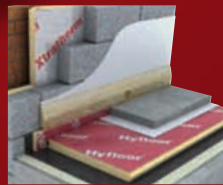
Insulation for Ground Supported and Suspended Floors



### XT/TL

#### Walls:

Insulation for Drylining walls Fixed with Adhesive Dabs



### XT/HYF

#### Floors:

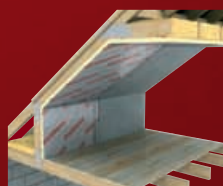
Insulation for Ground Supported and Suspended Floors with Engineered Jointing.



### XT/TL-MF

#### Walls:

Insulation for Drylining walls Mechanically Fixed to Battens



### XT/PR

#### Roofs:

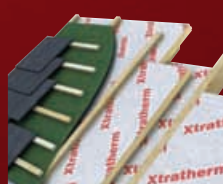
Insulation for Pitched Roofs



### XT/TF

#### Walls:

Insulation for Timber Framed Walls



### XT/SK

#### Roofs:

Insulation for Sarking (Warm Roof) Constructions with Engineered Jointing

## Rigid Insulation Flexible Solutions

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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 certifications are 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.