

OCTOBER 2010 IRL

# Xtratherm®

Affordable innovation.

## Extra performance Cavity-Plus insulation board

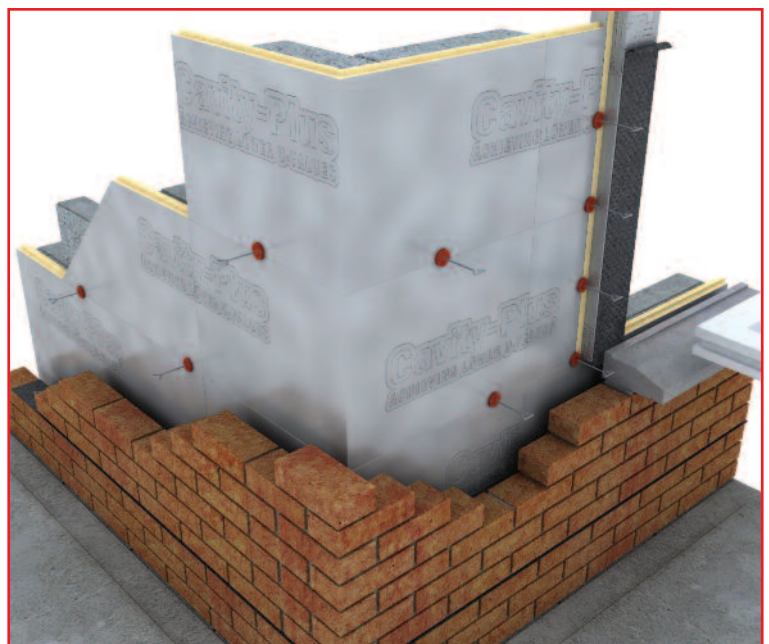
**Cavity-Plus**  
**X021**  
**Xtratherm®**  
ACHIEVING LOWER U-VALUES

New cavity wall  
insulation board with  
**lambda value of 0.021**

COST EFFECTIVE THERMAL SOLUTIONS

The 40% improvement in energy efficiency standards required by the recent revision of Building Regulations in Ireland has demanded better insulation U-values to be achieved with better detailing to ensure improved performance.

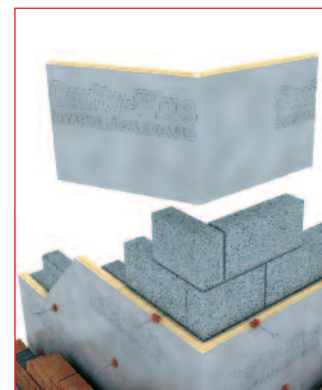
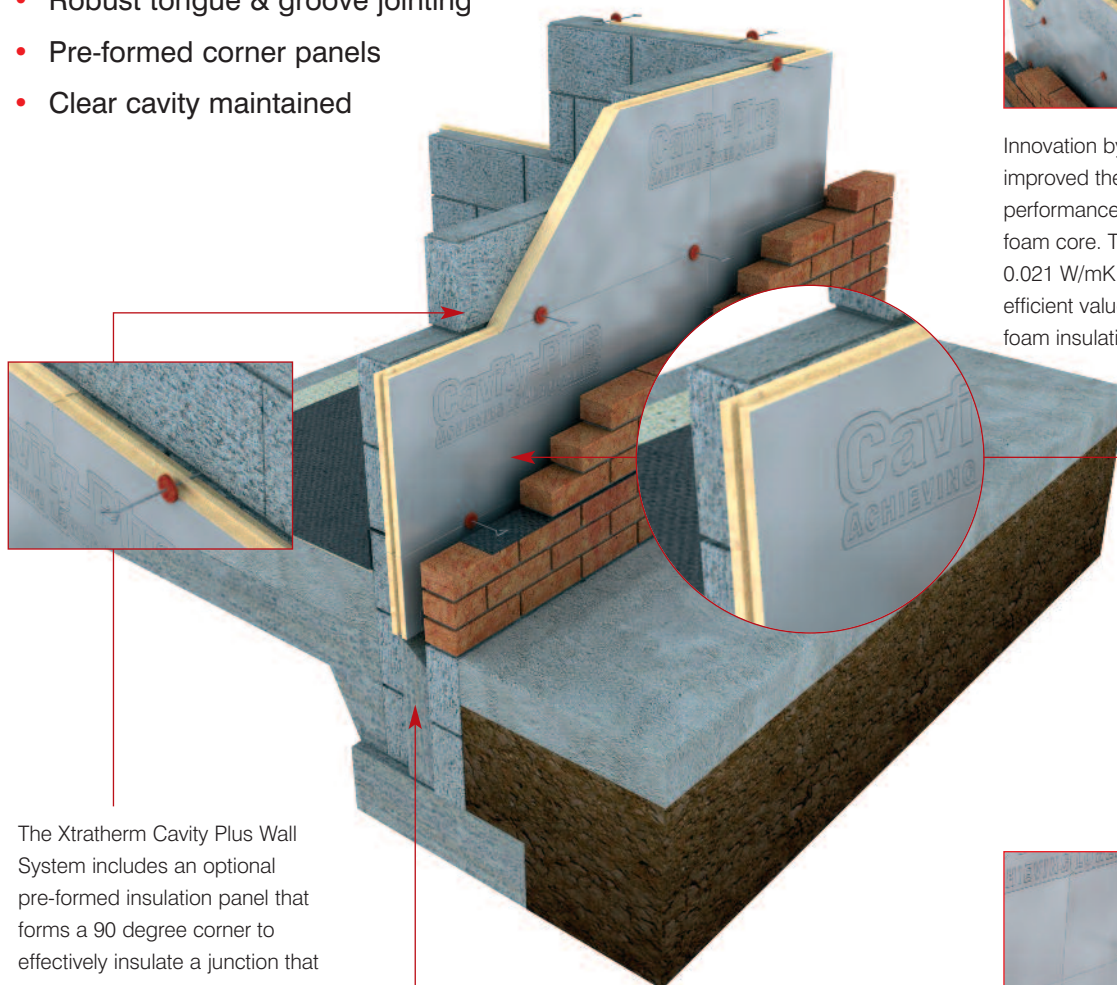
**Xtratherm Cavity Plus, with improved thermal conductivity and superior detailing at corners and reveals delivers that performance.**



Efficient fabric insulation - Lower energy demand

# Cavity-Plus Wall

- 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



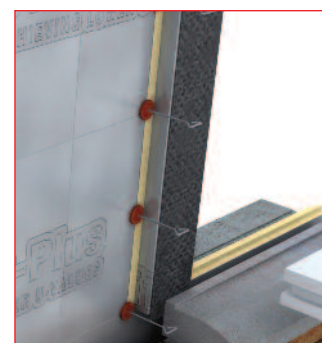
Innovation by Xtratherm have improved the insulation performance of the Cavity Plus foam core. The Lambda value of 0.021 W/mK achieves the most efficient value available for rigid foam insulation.

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.

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.

Xtratherm Cavity Plus Wall insulation is placed in the cavity of a wall. The minimum residual cavity width allowed is 40mm in accordance with Homebond.

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



Xtratherm Reveal boards are pre-cut to tightly fit around reveals at window and door openings, allowing ties to be positioned 150mm in from the edge of the reveal and at every block joint providing a superior accredited detail.

## Specification Clause

The partial fill cavity wall insulation shall be Xtratherm Thin-R XT/CWP \_\_\_ mm thick, with a lambda value of 0.021 W/mK 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



# Thin-R/CWP(T&G)

## Partial Fill Cavity Insulation

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.



### Cavity Wall Installation Guidelines

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

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

Ensure a minimum 40mm residual cavity is maintained.

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 and preformed reveal panels may be fitted to provide improved accredited detailing.

Xtratherm Hyclips can be used to secure boards tightly against inner leaf at sills and wall plate etc. where wall ties are inappropriate.

Accredited details should be followed to ensure calculated performance is achieved.

### Typical U-value

XT/CWP Thickness (mm)	U-value	U-value (with additional thermal liner)*
60	0.25	0.17
80	0.20	0.15
100	0.17	0.13

Wall ties stainless steel at 3/m<sup>2</sup>. HD block.

\* XT/TL Thermal Liner 50mm O/A.

### SHEET SIZE AND TOLERANCE

DIMENSIONS	SIZE (mm)
Length	1200
Width	450
Thickness	60, 80, 100

\*Other sizes are available subject to quantity and lead time

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

### Standards

Xtratherm Cavity Wall Plus is manufactured under quality systems approved under EN ISO 9001: 2000 and its use is covered by IAB Certificate 08/0324.

### Cutting

Xtratherm Thin-R Boards can be readily cut using a sharp knife or fine toothed saw.

### 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 Thin-R is stable, rot proof and durable. It will remain an effective insulant for the life of the building.

### Availability

Xtratherm Thin-R is available through Merchants and Distributors throughout the UK and Ireland. For the location of your nearest stockist contact Xtratherm.

### Packaging

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

### Handling & Storage

Xtratherm Thin-R should be stored off the ground, on a clean, flat surface and must be stored under cover. The polythene wrapping of Xtratherm Thin-R pack is not considered adequate protection for outside exposure.

### Health & Safety

All Xtratherm products are safe to use and chemically inert. A Health & Safety information sheet is available from the Xtratherm Technical Support Department.

### 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](http://www.xtratherm.com)**

*Good workmanship and appropriate site procedures are necessary to achieve expected performance. 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 reserve the right to change the content of this publication without prior notice.*

The Xtratherm range of high performance insulation boards provides the complete solution for newbuild and refurbishment.

### Thin-R Sloped Roof Insulation



#### XT/PR

Effective insulation of roof area  
Reduced insulation thickness  
Reduces thermal bridging  
Minimizes intrusion into living area

### Thin-R Sloped Roof Insulation



#### XT/RLOC

Effective insulation of roof area  
Width Variable  
Reduced fitting time.  
Minimizes intrusion into living area

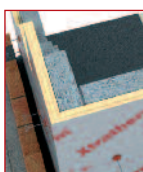
### Thin-R Flat Roof Thermal Ply



#### FR/TP

Insulation & decking in one fix  
For new & refurbishment roofs  
Rapid weather proofing

### Thin-R Partial Fill Cavity Wall Insulation



#### XT/CW T&G

Robust tongue & groove jointing  
Clear cavity maintained  
Corner & reveal panels  
Low emissivity foil facings  
Extra thermal performance

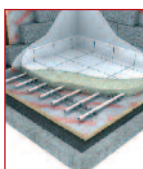
### Thin-R Insulation for Drylining Walls



#### XT/TL-MF

High thermal performance  
Drylining & insulation in one fix  
Shorter drying time  
Responsive insulation system

### Thin-R Under Floor Insulation



#### XT/UF

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

# Xtratherm®

**iab**  
Bord Agrément na hÉireann  
Irish Agrément Board

Certificate No: 08/0324



Zero Ozone  
Depletion Potential

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TR/CWP/IRL/10-10