



# THERMAL REAL DEAL

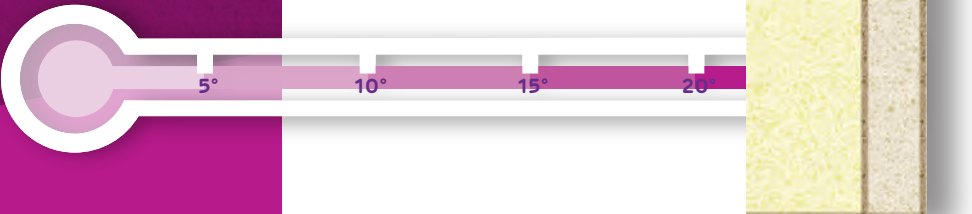
A technical guide to  
thermal insulation with  
GTEC thermal boards.

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# THERMAL PROBLEM

The impact of climate change is increasing and so are energy prices. By making new and existing buildings more energy efficient, you can reduce energy loss and help save money on energy bills.



## HEAT: THE GREAT ESCAPE

Heat can leak through any external surface in a home, but most escapes through the walls and loft space.



## THE BUILDING REGS

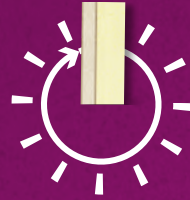
To improve thermal efficiency there are building regulations for new build, renovation and replacement work. The regulations can be found in these documents, thermal efficiency is expressed as a U-value...

- England & Wales: Part L Building Regulations
- Northern Ireland: Technical Standard F1
- Scotland: Technical Handbook Domestic, Sec 6 (energy).

## WHAT EXACTLY IS A U-VALUE?

Put simply, it's the measurement of the rate of heat loss through a material. The less heat is lost, the lower the U-value.

Calculating U-values can be quite complex: heat loss is worked out by measuring the temperature difference on either side of 1m<sup>2</sup> of material.



## WE'RE HERE TO HELP

Siniat Technical Services are here to offer advice for all our customers, whether they're undertaking domestic renovations or large commercial projects.

The team is waiting for your call  
9am – 5pm Monday to Friday on **01275 377789**.

Information we'll need:

1. Your target U-value
2. The site address (needed to calculate the condensation risk)
3. The age of the property or construction details about the type of wall/roof including:
  - Materials (listed from outside to in)
  - Insulation products already used
  - Thermal values of insulation products (if known)

# SINIAT THERMAL BOARDS RANGE

BEST ★★

## GTEC Thermal PIR Board



- 12.5mm plasterboard bonded to **polyisocyanurate foam (PIR)**
- 40% thermal improvement over GTEC EPS
- Pick from a range of thicknesses between 37.5 and 82.5mm

**Save your client up to 37% on annual heating costs** (Source: GDF Home Energy Assessors. Based on Pre-Victorian stone detached house)



BETTER ★★

## GTEC Thermal XP Board



- 9.5mm plasterboard bonded to **extruded polystyrene foam (XPS)**
- Over 10% thermal improvement over GTEC EPS
- Pick from a range of thicknesses between 27 and 55mm

**Save your client up to 32% on annual heating costs** (Source: GDF Home Energy Assessors. Based on Pre-Victorian stone detached house)



GOOD ★

## GTEC Thermal EPS Board



- 9.5mm plasterboard bonded to **expanded polystyrene (EPS)**
- Our basic level of thermal resistance
- Pick from a range of thicknesses between 22 and 50mm

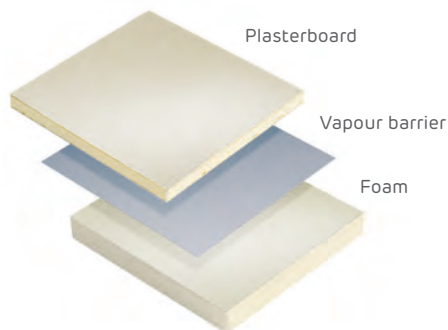
**Save your client up to 21% on annual heating costs** (Source: GDF Home Energy Assessors. Based on Pre-Victorian stone detached house)



# CONTROL CONDENSATION

Condensation occurs when water vapour comes into contact with cold surfaces and condenses to form dampness or water droplets. It can cause problems within walls and lead to black mould growth and structural damage.

## VAPOUR BARRIER

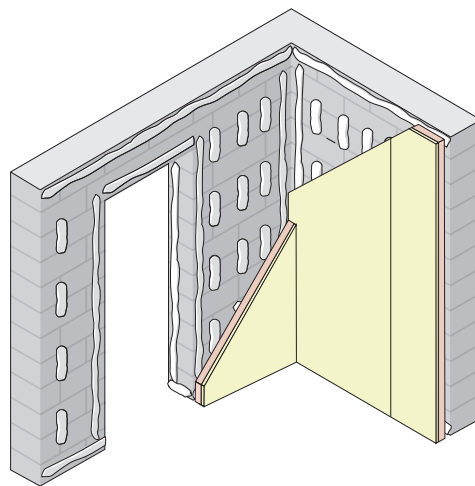


## HOW SINIAT GTEC THERMAL PIR HELPS



The metal vapour barrier in Sinia GTEC Thermal PIR boards sits between the plasterboard and foam layers and helps prevent condensation forming within the wall. So that's another problem you can fix for your customers.

# DOT AND DAB INSTALLATION



- Minimal impact on wall thickness
- Minimal components for a low cost solution
- Suitable for use with all GTEC Thermal Boards
- x Not suitable for fixing to solid brick external walls

Now you know the benefits of our dot and dab installation, learn how to do it with our 'How to beat the cold by installing Sinia thermal boards' video:

**You Tube** [youtube.com/siniatukchannel](https://www.youtube.com/siniatukchannel)

## SYSTEM COMPONENTS



GTEC Universal Bonding Compound

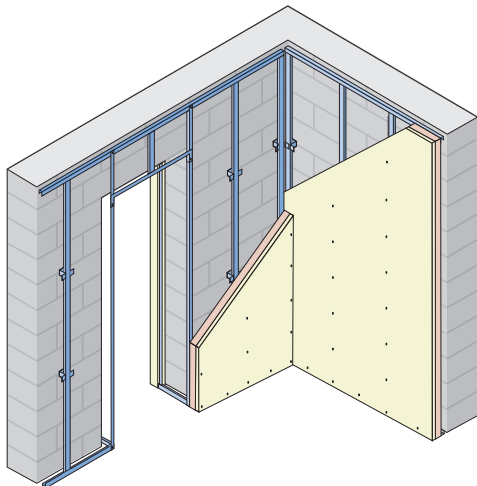


GTEC Universal Bonding Compound

\*Thermal boards must be fixed for fire safety. 2 GTEC nailable plugs to be installed 300mm from the top of the board and 25mm from each edge, penetrating 25mm into the masonry wall.



# DRYLINING INSTALLATION



- Provides a straight flat finish even when fitted to uneven walls
- Creates cavity for electrical and plumbing services
- Suitable for use with all GTEC Thermal boards
- x Cannot be used for cavities over 130mm

Basics covered, now check out our 'How to cover an uneven wall' video for detailed instructions:

**YouTube** [youtube.com/siniatukchannel](https://www.youtube.com/siniatukchannel)

## SYSTEM COMPONENTS

GTEC Dryliner Channel



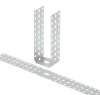
GTEC Dryliner Track



GTEC SR Bracket



GTEC XR Bracket



GTEC Self Tapping



GTEC Wafer Head



GTEC Pan Head



GTEC Nailable Plugs



# LOFT CONVERSION



- Save time and effort by installing the insulation and board at the same time
- PIR boards have a metallised vapour barrier as standard to help control condensation
- High thread screw length needs to be at least the board depth plus an additional 25mm for timber installations

Find out how to install the Siniat Thermal boards range with our 'How to beat the cold video':

**YouTube** [youtube.com/siniatukchannel](https://www.youtube.com/siniatukchannel)

## SYSTEM COMPONENTS

GTEC Thermal board to achieve U Value



GTEC High thread screws





## THERMAL KNOW-HOW

For a step-by-step video guide and tips on using metal frame systems and installing thermal boards, check out our YouTube channel:

**[youtube.com/siniatukchannel](https://youtube.com/siniatukchannel)**

And to discover more about how our products, services and expertise can help you help your customers, visit the new Siniat website:

**[www.siniat.co.uk](http://www.siniat.co.uk)**

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