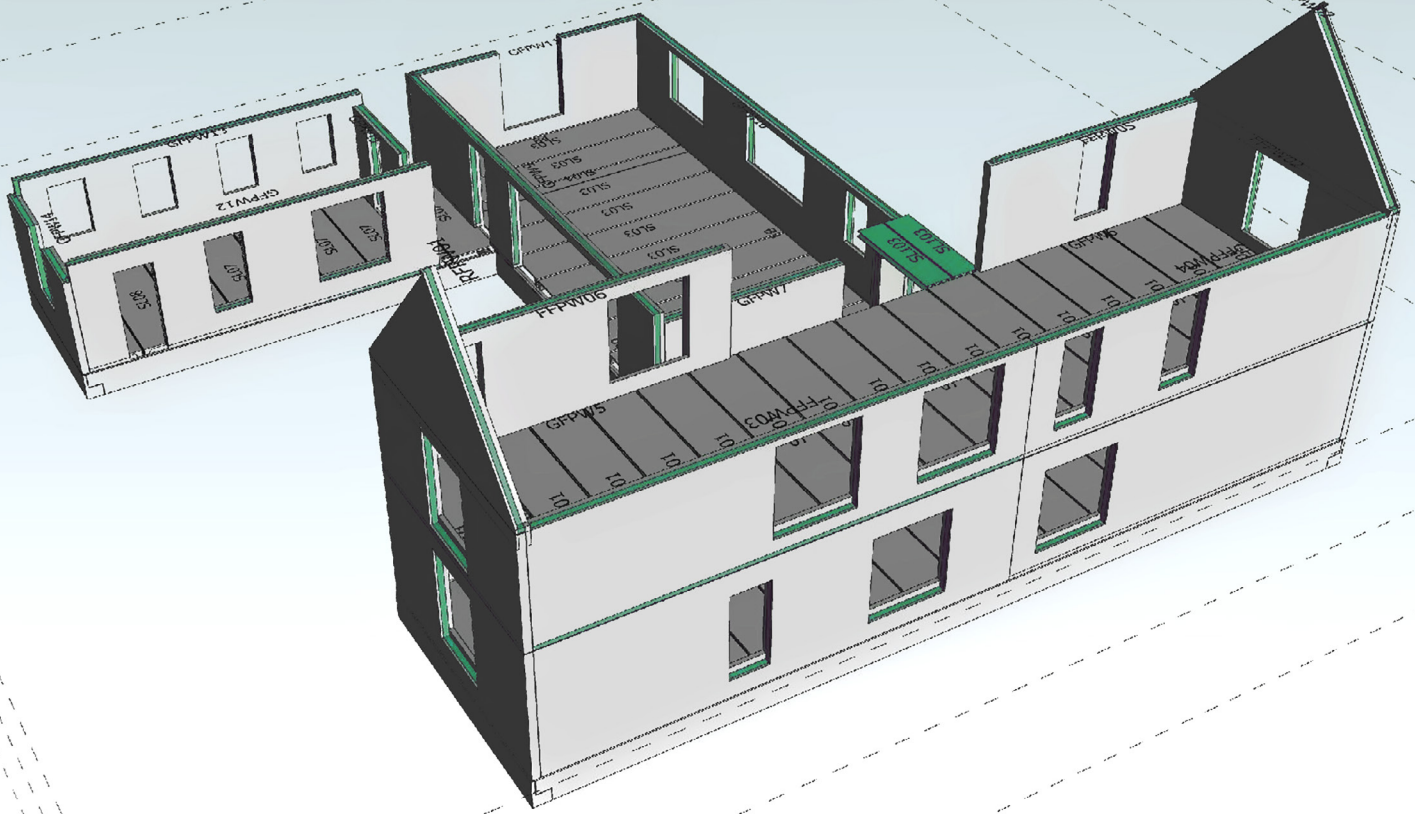




**HI-THERM  
HOMES**



**TO  
IMPROVE  
ON SITE,  
MOVE  
OFF SITE**

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**t:** +353 5787 38579  
**e:** [info@hithermhomes.com](mailto:info@hithermhomes.com)  
**www.hithermhomes.com**

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Kilcotton,  
Borris-in-Ossory,  
Co. Laois, R32 P9D0

# ROAD TO SUCCESS

Hi-Therm Homes is a family owned manufacturer and installer of insulated precast concrete structures for homes and commercial buildings throughout Ireland and the UK.

We complete these structures much faster than any other build system at our 6,000m<sup>2</sup> facility in Co. Laois.

The group was founded in 1989. Since then it has grown in both product offering and reputation.

We have a broad portfolio of successfully completed projects totalling 300+ units across a range of sectors including Residential, Commercial, etc.

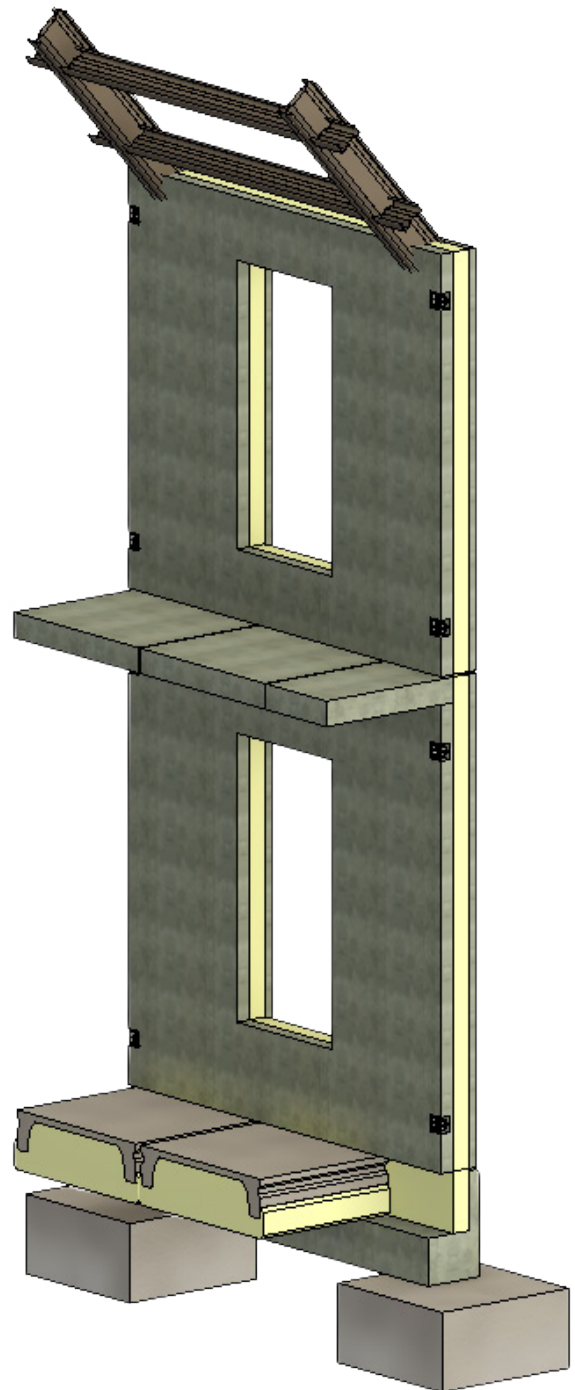
We continue to invest in modern business practices and management techniques in order to ensure that we remain at the cutting edge of our industry.

We continue to build on our reputation with our focus firmly on growing the ability of the business to deliver in new and innovative ways.



# THE BENEFITS OF A HI-THERM HOME

- ▶ Speed - The Hi-Therm Homes SpanBeam foundation (patented), ThermFloor, ThermWall (with cast-in window cills), Precast Stairs, and Hollowcore floors can all be installed for a pair of semi-detached houses, in approximately 3 working days
- ▶ Quality - Off-site manufacture in a factory-controlled environment delivering the highest standards of quality (exceeding current building regulations)
- ▶ Awards - Award winning products, unparalleled strength and thermal performance compared to the alternative build methods available on the market
- ▶ Insulation – Fully insulated junction between wall & floor delivers the complete insulated envelope for your structure – cannot be achieved using alternative systems. Passive house standards can be achieved if you require
- ▶ Acoustic - Superior sound insulating qualities compared to block or timber frame due to much higher density products
- ▶ Fire Resistance - In fire, concrete performs very well, both as an engineered structure, and as a material in its own right. We have a fire test pass rate of 120 minutes for load bearing structures



# WALL CONSTRUCTION

## SpanBeam (External)

U-Value (N/A)

### Reinforced structural beam:

SpanBeam is a reinforced precast concrete structural beam that sits on concrete pads (c. 1m x 1m - formed by others) at max centres of 4m at sub ground level. Once SpanBeam has been installed, the ThermFloor (see below) product can be positioned on top to complete the full Hi-Therm Homes insulated ground floor slab.

## ThermFloor (Insulated ground floor)

U-Value (0.13W/m2K)

The floor is made up of reinforced concrete and EPS insulation. Each floor slab is compressed against each other to lock in the thermal performance across the entire floor. All services are incorporated within the floor during installation. Final screed of c. 75mm covers floor (by others) to seal all joints.

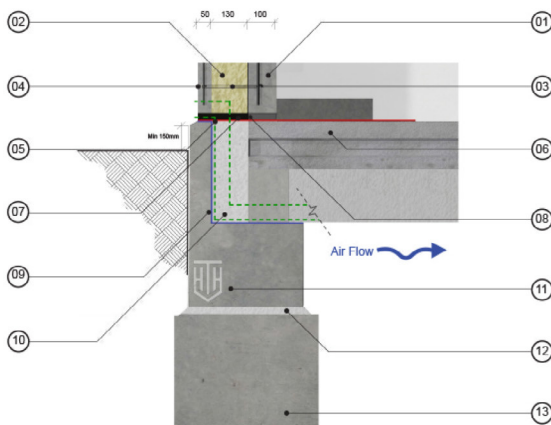
### Fully Insulated:

Floors have 325mm EPS insulation underneath structural concrete, manufactured in our factory-controlled environment offering total precision, with c. 75mm screed floor (by others) covering all joints. A u-value of 0.13 W/m2K is achieved in your ground floor when you use ThermFloor.

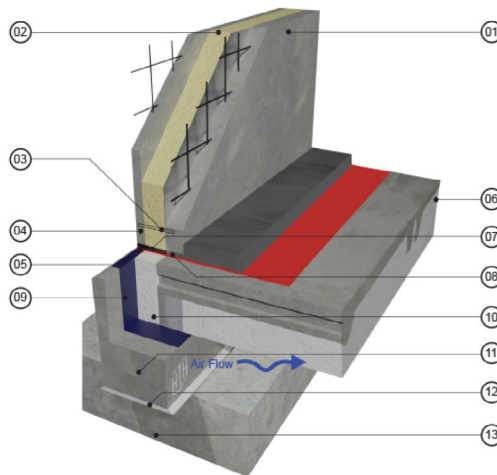
### Installation includes:

125mm (w) x 375mm (D) compressed EPS insulation in channel where ThermFloor meets SpanBeam. Again, locking in the thermal performance across the entire floor.

## Section view of a Hi-Therm wall support



TYPICAL SECTION THROUGH EXTERNAL WALL SUPPORTS  
SCALE 1:10



### DETAIL LEGEND

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>01 100mm thk. C40 CONCRETE INNER LEAF WITH A393 MESH POSITIONED AS SHOWN</li> <li>02 HIGH DENSITY INSULATION SANDWICHED BETWEEN CAST INNER AND OUTER PANELS</li> <li>03 THERMOPIN TIES EMBEDDED IN EACH PANEL (4No. TIES PER SQ.M - APPROX. 500mm CENTERS VERTICAL AND HORIZONTAL)</li> <li>04 50mm thk. C40 CONCRETE OUTER LEAF WITH A142 MESH AS SHOWN</li> <li>05 DPM / RADON BARRIER - STRIP TO BE LEFT AT BASE OF WALL. BARRIER TO BE INSTALLED BY OTHERS IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS</li> <li>06 INSULATED GROUND FLOOR SLAB BY HI-THERM HOMES WITH 75mm SCREED BY OTHERS</li> </ul> | <ul style="list-style-type: none"> <li>07 15mm COMPRESSED INSULATION UNDER OUTER LEAF</li> <li>08 HIGH-STRENGTH NON-SHRINK GROUT UNDER INNER LEAF AT MAX. 2.5m CENTRES.</li> <li>09 DPC</li> <li>10 INSULATION BOARD TO THE END OF THE GROUND FLOOR SLABS AND BENEATH CAVITY WITH TELESCOPIC VENT</li> <li>11 GROUND BEAM BY HI-THERM HOMES SPANNING BETWEEN FOUNDATIONS PROVIDED BY OTHERS</li> <li>12 HIGH-STRENGTH, NON-SHRINK LEVELING GROUT TO BE PROVIDED BENEATH GROUND BEAM WHERE REQUIRED</li> <li>13 PAD FOUNDATIONS SUPPORTING GROUND BEAMS AT MAX. 4m CENTERS BY OTHERS</li> </ul> |
|---|--|

# HTH INTERNAL STRUCTURAL WALLS AND PARTY WALLS

To carry floor and roof loads, we supply solid precast structural reinforced walls measuring 200mm in thickness. These walls are also used as party walls in our multi-unit projects & can be used in an array of applications.

## Benefits:

- ▶ Fire Resistant
- ▶ High Thermal Mass
- ▶ Highly Durable
- ▶ Superior Strength



# **PRECAST CONCRETE STAIRS & LANDINGS**

- ▶ Unique rounded-edge design to minimise damage
- ▶ Designed in-house
- ▶ Superior strength
- ▶ Speed of install giving immediate access
- ▶ High fire resistance



# CERTIFICATIONS AND AWARDS

The HTH structure is a fully designed structure by our partner engineering firm, CHH. Your structure will be fully covered by CHH's professional indemnity insurance, giving you peace of mind.



In 2008 our insulated precast wall received the 'Product of the Show' award at the Building Exhibition in the RDS, Dublin.



Have the durability of reinforced concrete and the versatility of the Hi-Therm Homes design, ThermWall can be tailored for each client's needs.

Product confidence and compliance with relevant regulations is essential to our customers. All our products are NSAI certified with the CE marking.



*Product of Show Award*



**HI-THERM  
HOMES**

**GET IN TOUCH  
WITH US TO  
FIND OUT MORE**

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**t: +353 5787 38579**  
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Kilcotton,  
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