

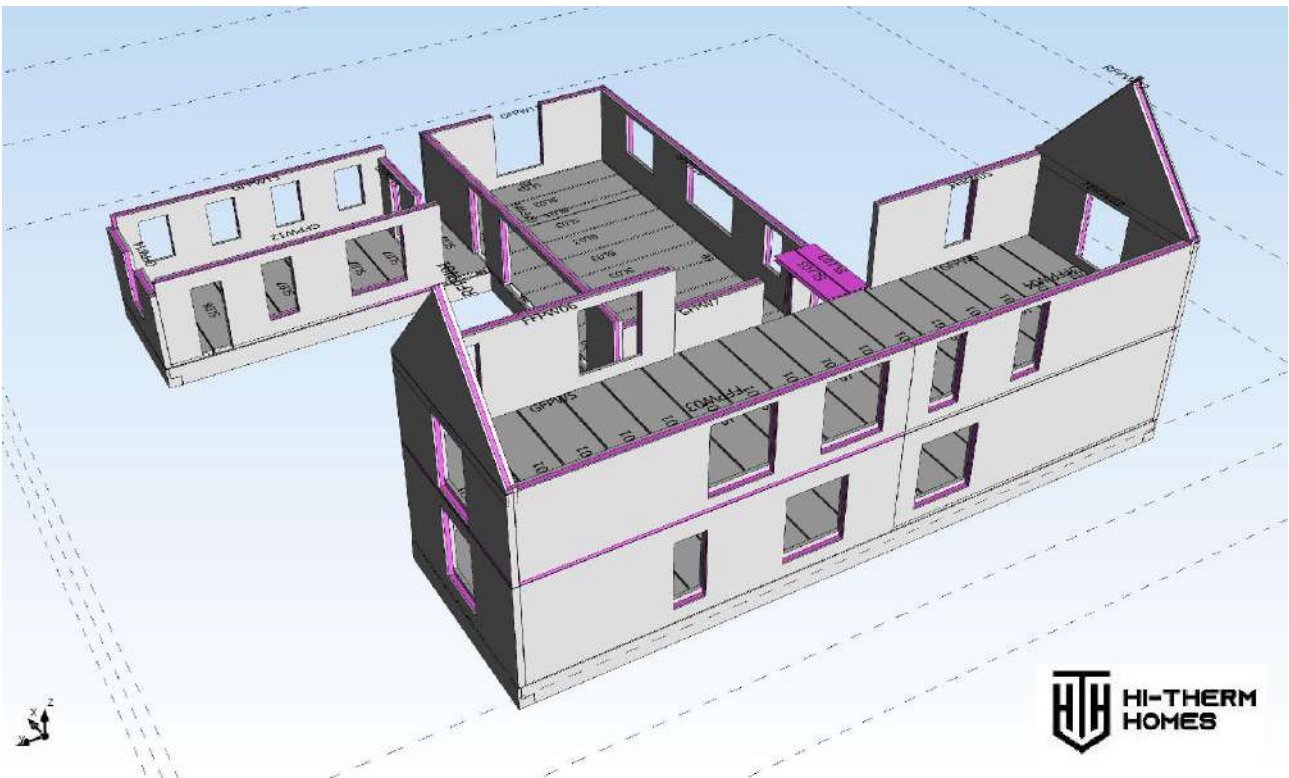


HI-THERM HOMES



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**HI-THERM HOMES
ARE COMMITTED TO QUALITY,
SPEED AND RESULTS**



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

Specialist Subcontractors
'strength is nothing without structure'

www.hithermhomes.com

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Road to Success



Facility 10mins from M7 & M8 Motorways

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.

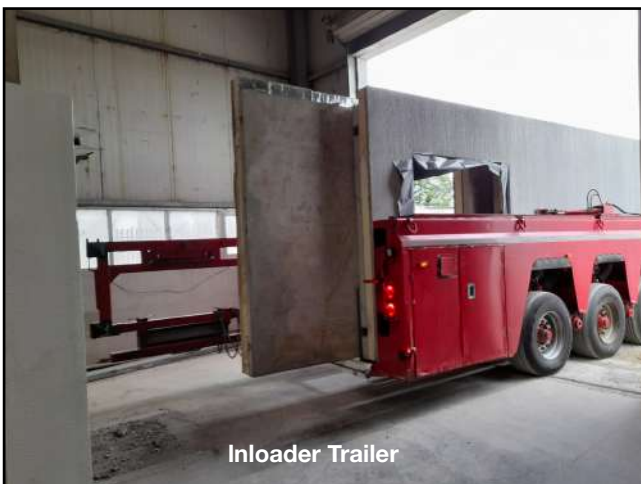
We complete these structures much faster than any other build system at our 6,000m² facility in Laois.

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.



3-Day Construction



Inloader Trailer

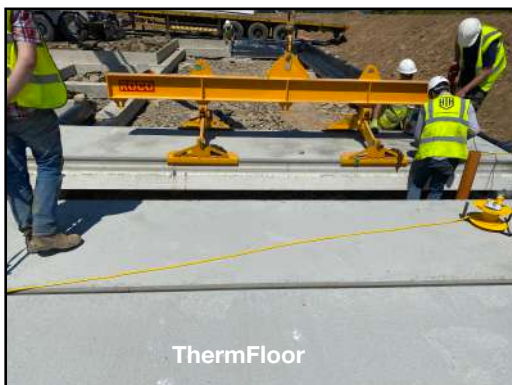
We continue to invest in modern business practices and management techniques in order to ensure that we remain at the cutting edge of our industry.

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.



Hi-Therm Homes Build System Benefits

1. **Speed** - The Hi-Therm Homes SpanBeam foundation (*patented*), ThermFloor, ThermWall (with cast-in window cills), Stairs, Hollow Core floors and ThermRoof can all be installed for a pair of semi-detached houses, **in less than 7 working days**
2. **Quality** - Off-site manufacture in a factory controlled environment delivering the highest standards of quality (exceeding current building regulations)
3. **Awards** - Award winning products, unparalleled strength compared to block or timber frame
4. **Airtightness** - Pressure tight insulated wall cavity results in superior heat retention in the home. Unique insulated floor and wall junction enables continuous insulated envelope, further improving airtightness efficiency
5. **Acoustic** - Superior sound insulating qualities compared to block or timber frame due to much higher density products
6. **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 90 minutes for load bearing structures.

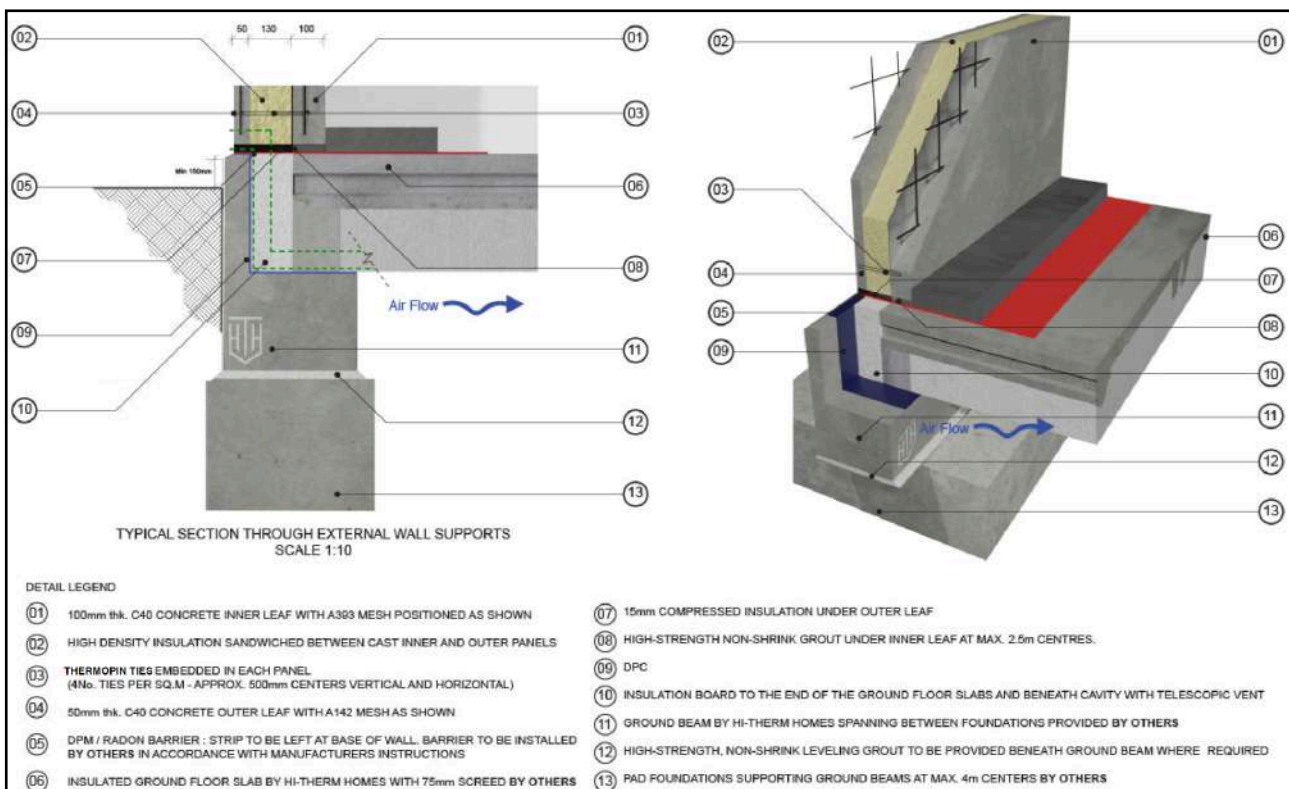




Component Schedule

Foundation Construction - SpanBeam & ThermFloor

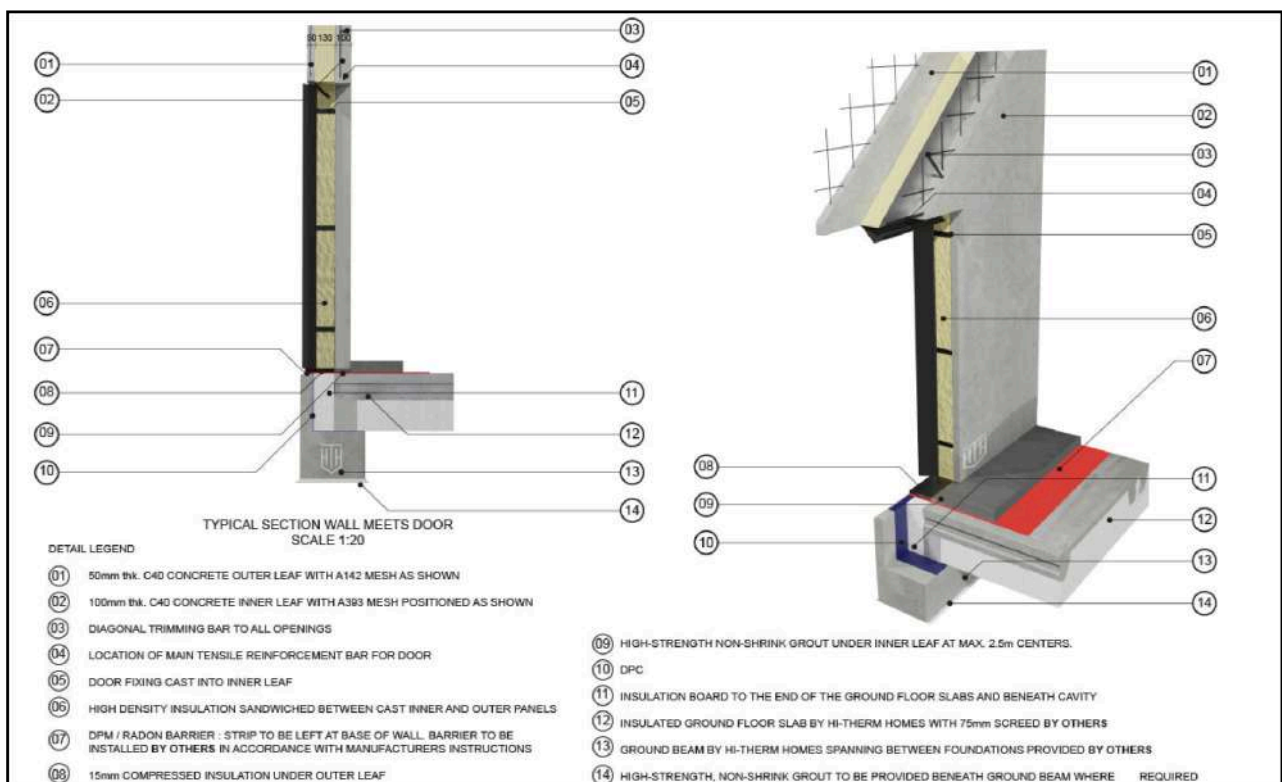
HTH Product	U-Value	Description
SpanBeam (External)	N/A	<p>Reinforced structural beam: SpanBeam is a reinforced precast concrete structural beam that sits on concrete pads at sub ground level (c. 1m x 1m - formed by others).</p> <p>Once SpanBeam has been installed, the ThermFloor (see below) product can be positioned on top to complete the full Hi-Therm Homes foundation system.</p>
ThermFloor (Insulated ground floor)	0.13W/m ² K	<p>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 design in to the floor before manufacture, allowing for easy installation. Final screen of c. 75mm covers floor (by others) to seal all joints.</p> <p>Cold Bridging Eliminated: ThermoPin tie anchors between topside concrete and underneath EPS layer have low thermal conductivity, eliminating cold bridging, at centres required by structural calculations</p> <p>Insulated and Airtight: 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 enhancing airtightness.</p> <p>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 and foundation.</p>





Wall Construction - ThermWall

HTH Product	U-Value	Description
ThermWall (External Wall)	0.16W/m²K (U value can be improved on request)	<p>Inner leaf: reinforced precast concrete structural layer of 100mm</p> <p>Middle section: compressed PIR insulation of 125mm</p> <p>Outer leaf: reinforced precast concrete layer of 50mm</p> <p>Cold Bridging Eliminated: ThermoPin tie anchors between inner leaf, middle section and the outer leaf having low thermal conductivity, eliminating cold bridging, at centres required by structural calculations</p> <p>Insulated and Airtight: Precast concrete walls have 125mm PIR insulation as cast-in middle section, manufactured in our factory-controlled environment offering total precision, with compressed perimeter insulation strip enhancing airtightness.</p> <p>Fire Test (EN 1365-1): Achieved pass rate of 90 minutes for load bearing structure</p> <p>Cast-in Ancillary Items: In the factory, all windows & doors are formed with cast-in DPC and window openings include cast-in cills. Aluminium coated steel couplers are cast into walls for fast and easy installation, and connection, of all walls</p> <p>Installation includes: 22mm (D) x 125mm (W) compressed insulation strip on all horizontal and vertical wall joints.</p> <ul style="list-style-type: none"> - Horizontal joints: insulation strip is compressed from 22mm to 15mm by load bearing of wall, with shims - Vertical joints: insulation strip is compressed from 22mm to 15mm by tightening couplers to correct torque, with shims





HTH Internal Structural Walls and Party Walls

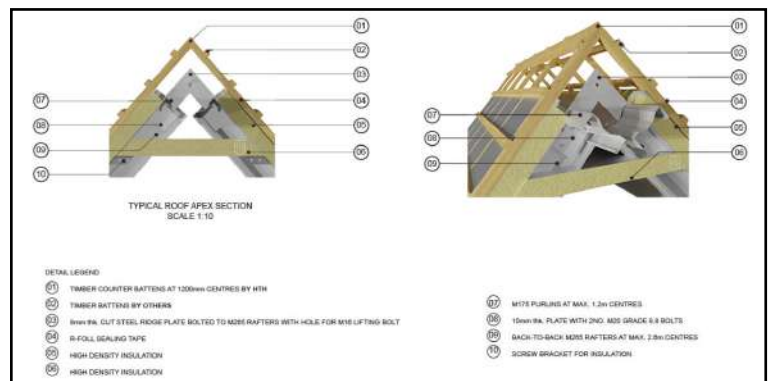
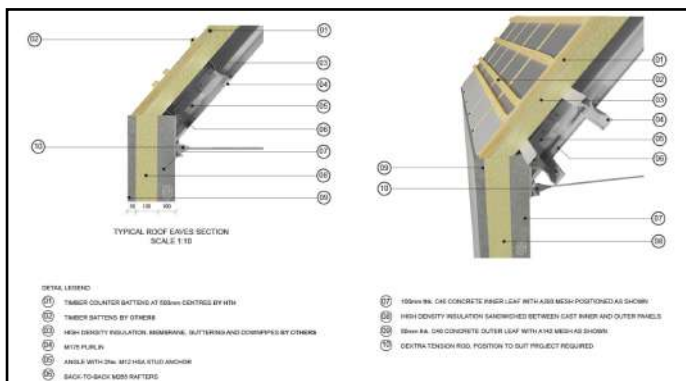
To carry floor and roof loads, we supply and install solid precast structural reinforced walls measuring 200mm in thickness. These walls are also used as party walls in our multi unit projects, they can be used in various structures.

Benefits:

- Precast concrete is non-combustable / fire resistant
- Bespoke to suit client requirements
- Positive thermal mass
- Quality finished surface
- Durable

Roof Construction - ThermRoof

HTH Product	U-Value	Description
ThermRoof (Steel frame)	0.16W/m²K (U value can be improved on request)	<p>Back-to-Back Rafters (M265) & Purlins (M175): factory framed ladder units framed to 2.4m wide and lentos as required to suit - cold rolled steel bolted at all connections</p> <p>Tension rod: from eave to eave, positioned to suit each design</p> <p>Cross members: No cross members required where tension rod is being used - full open attic space</p> <p>Insulated and Airtight: ThermRoof has PIR insulation flush to rafter top edge, we then apply a further PIR insulation layer (sealed with R-Foil tape) cover rafter edge, and full roof, secured by vertical batons. ThermRoof is manufactured in our factory-controlled environment offering total precision, with compressed eaves insulation (between wall & roof) enhancing airtightness.</p> <p>Cold Bridging Eliminated: No cold bridging due to full roof structure being insulated and taped with R-Foil on any joints.</p> <p>Inclusions Eaves: Facia and soffit structure can be provided as per client drawings Trimmings: To chimney</p>





Design, Accreditation & Awards



The BDA Agrément® certificate for Hi-Therm Homes is in progress and is designed to underpin the "safety and fitness for purpose" of products destined for the UK & EU construction market.

Products are examined and rigorously tested following precise installation instructions. Agréments confirm the compliance and durability of the product under the specified method of installation.



Kiwa is an independent body who assesses Hi-Therm Homes' products, services, personnel and processes.

They make sure we comply with all the laws and regulations concerning safety, efficiency, control and sustainability under the BDA Agrément® certificate.



CHH provide Hi-Therm Homes with a full structural consultancy service for projects to the design of individual structural elements.

Their structural design services incorporate various construction materials including reinforced precast concrete and steel structures.



In 2008 Hi-Therm Homes received the award of 'Product of the Show' for its insulated precast concrete wall.

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

Product of Show Award

Winner



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