

Comparative features	Timber-frame house	H-Block/Thermont house	Advantage: H-Block / Thermont vs timber-frame house
<i>Insulation thickness needed to obtain <math>U = 0.23</math> <math>W/m^2K</math>)</i>	Mineral wool with a thickness of 22 cm "upholstered" with OSB boards screwed to the wooden rails.	10 cm thick polyurethane foam in a combined cladding of the insulation core made of OSB boards and / or sheet metal.	✓ <b>Thinner walls - increased usable for the same building</b>
<i>Thermal and anti-moisture tightness</i>	Possibility of air leakage when filling the space between the wooden stiles with mineral wool and the gravitational "settling" of the wool over time creating micro-gaps between the upper plane of the wool and the wooden frame.	Closed-cell foam is injected in a press under high pressure into a closed form made of OSB boards / panel cladding sheet. The injected foam binds the lining with the insulating core into one, without the possibility of air and moisture penetration.	✓ <b>Tightness ensured in the production process and not during prefabrication on site. Tightness is a critical element for the thermal and humidity insulation of the building.</b>
<i>Design and load capacity</i>	The necessary wooden frame, in the walls in the form of frames with a post every 60 cm	Connection of H-Block wall elements on the so-called tongue and groove with the LHB connector, which is filled with polyurethane foam.	✓ <b>Maximum reduction of thermal bridges by replacing wood with polyurethane foam.</b>
<i>Assembly</i>	Prefabrication of a house on a construction site by labor-intensive cutting of wood and OSB boards and laying mineral wool.	Building a house from "made to measure" panels produced in the factory for an individual project. Assembling according to instructions similar to the instructions for assembling furniture.	✓ <b>Reduction of waste to a minimum, quick and easy assembly - also by an unprofessional team.</b>
<i>Roof</i>	The need for a multi-stage roofing, i.e. : - complicated roof truss - wind and steam insulation, - thermal insulation, - rain insulation	Roofing made of ready "made-to-measure" elements based on the ridge and cap (or intermediate purlins). Thermont panels are also covered with sheet metal which is finishing.	✓ <b>Elimination of multi-stage works by making the roof covering from the "three in one" element, i.e. : -construction (elimination of the traditional truss) - thermal isolation, - rain insulation In many cases, the roof can be covered in one day.</b>

