

<u>Construction and Insulation</u>	
<u>Element</u>	<u>U-Value</u> (W/m ² K)
<u>Exposed Wall</u> Solid brick wall + 50mm timber battens/cavity + 75mm PIR insulation + 32.5mm insulated plasterboard (20mm PIR insulation + 12.5mm plasterboard).	0.19
<u>Party Wall</u> Masonry construction (all cavities where applicable fully insulated, all edges fully sealed).	0.00
<u>Ground Floor</u> (Option 1) 22mm moisture resistant flooring board + 100mm PIR insulation (between timber joists).	0.22-0.23
<u>Ground Floor</u> (Option 2) Screed + 75mm PIR insulation + solid concrete floor slab.	0.20-0.21
<u>Roof</u> 100mm PIR insulation (between rafters) + multi-foil insulation over rafters.	0.18
<u>Windows</u> Timber frame double-glazed + 16mm cavity (argon gas fill) + soft coat low-E glass, or similar to achieve a U-value of 1.60W/m ² K (or better).	1.60
<u>Doors</u> Timber frame double-glazed + 16mm cavity (argon gas fill) + soft coat low-E glass, or similar to achieve a U-value of 1.80W/m ² K (or better).	1.80
<u>Rooflights</u> Conservation style metal frame double-glazed + 16mm cavity (argon gas fill) + soft coat low-E glass, or similar to achieve a U-value of 1.60W/m ² K (or better).	1.60
Note : U-value certification will be required from the supplier for the windows, doors & rooflights upon completion.	

<u>Heating, Ventilation & Renewables</u>
<u>Main Heating System</u> Electric ground or air source heat pump(s) + wet underfloor heating and radiators. Standard tariff electric.
<u>Secondary Heating System</u> (optional) Wood-burning stove (wood only, not multi-fuel), HETAS approved, minimum 65% efficient.
<u>Water Heating</u> From heat pump + electric immersion boost. Hot water cylinder (factory PIR insulation, heat loss TBC kWh/day) + thermostat. Fully insulated primary pipework.
<u>Heating Controls</u> Time and temperature zone controls.
<u>Ventilation</u> Background ventilators + intermittent extract fans (Approved Document F1, 2010, amended 2013).
<u>Solar</u>

Not applicable.

Other

Lighting

Min 75% of internal light fittings are low-energy (lamp luminous efficacy > 45 lumens/circuit watt, total output > 400 lamp lumens).

Water Use

Total water use < 125 litres/person/day.

Air Tightness

Part L1B - air pressure test not required.

Other Therm Energy Services (that may be relevant to this project)

- > Water Use Calculations
- > Sound Testing
- > Extract Fan Testing