

Group Standard Energy Solution Specifications: May 2013 – Version 2

AD Part L1A 2010 & Code Level 3 ENE1 (Nov 2010 Technical Guide) - Houses

Ground Floor

150mm thick suspended in situ concrete floor slab with 130mm Thermal Economics Platinum Board (k value 0.30) insulation below. 'U' value $\approx 0.20 \text{ W/m}^2\text{K}$

External Cavity Walls

300mm thick cavity wall comprising brick outer leaf, 100mm cavity with 50mm thick Aireflex Platinum board to inner leaf, and 100mm Aircrete 3.2N block inner leaf (TC 0.11 W/mK). Plasterboard and dab internal finish. 'U' value $0.27 \text{ W/m}^2\text{K}$

Party Walls

300mm thick cavity wall comprising 2 leaves of 100mm Aircrete 3.2N blockwork and 100mm cavity with RD party wall roll fill and cavity sock edge sealing to external walls and roof line. 12.5mm plasterboard on dab finish to each side. 'U' value $\approx \text{Zero W/m}^2\text{K}$

Internal Garage to Dwelling Walls

210mm thick comprising 150mm thick Aircrete 2.9N block leaf (TC 0.11 W/mK). 50mm thermal laminate (TR 1.97 W/m².K) plasterboard with 10mm dab inner finish. 'U' value $\approx 0.30 \text{ W/m}^2\text{K}$

Timber Floor over Garage

22mm chipboard, on 220/240mm deep I-beams @ 600mm max centres, void filled with mineral wool insulation (k-value 0.044) and 2 layers of 15mm plasterboard to ceiling below. 'U' value $\approx 0.20 \text{ W/m}^2\text{K}$

Thermal Bridging - Required to be calculated for each dwelling using sum of psi values.

Air Tightness Value - 5 or 6 m³/m²/hr @ 50 Pa (Dependant on house type)

Ventilation - Naturally ventilated. As standard.

Roof Insulation to Loft Area

400mm Mineral Wool ('K' value 0.044). 'U' value of 0.11 W/m²K

Roof Insulation to Sloping Areas of Roof (if required)

100mm thick PUR between rafters and underdrawn with 55mm PUR and plasterboard finish. 'U' value $0.16 \text{ W/m}^2\text{K}$

Windows

Eurocell PVCU windows or similar approved.

'U' value $\approx 1.41 \text{ W/m}^2\text{K}$.

'G' factor ≈ 0.71

Rooflights (if required)

Keylight rooflights. 'U' value $1.50 \text{ W/m}^2\text{K}$

External Doors

Rear/Side - Fifth Doors. Arts & Crafts 'U' value $1.70 \text{ W/m}^2\text{K}$, Classic 'U' value $1.70 \text{ W/m}^2\text{K}$

Front - Fifth Doors. Arts & Crafts. 'U' value $0.89 \text{ W/m}^2\text{K}$, Classic 'U' value $1.0 \text{ W/m}^2\text{K}$

DWH Use values quoted on IG Doors 'National Specification Details – 2008'.

Space Heating / Domestic Hot Water

Gas Boiler SEDBUK 'A' rated at 89.6% system

Gas boiler SEDBUK 'A' rated at 89.0% combi

Weather compensator to heating system

Boiler interlock, zone control and Delayed Start Thermostat

Cylinder - Range Tribune TI 150/250 litres

Internal Lighting - 100% low energy bulbs

No Secondary Heating

External Lighting - 100% low energy with PIR operation

No Renewables

CO2 emissions

25% minimum improvement over 2006 Part L1A Building Regulations

Compliance

AD Part L1A 2010 Building Regulation compliance.

CfSH Level 3 ENE1 (Nov 2010 Technical Guide)



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