

SAP SUMMARY

Client: Golowji Limited
Project: Land off Leat Road, Cornwall
Data Source:
Assessor: Simon Knight
Regulation: ADL1A (2012)
Issue: 14097 Issue 2

This is a brief overview to convey the general specification used within the SAP calculation for the noted project. Please refer to the individual Drawings and notes for detailed information and specification. Assumptions to construction fabric/key elements may have been required to comply with Part L1A, of which are noted.

Any changes to this or any other specification during the build process must be checked for compliance prior to installation.

CONSTRUCTION FABRIC

EXTERNAL WALL	U=0.23W/m²K (300mm wall) based on 140mm Timber frame wall with Isover 032 (or similar 0.032W/mk material), 10mm ply with Glidevale Protect TF200 Thermo breather membrane, 50mm clear cavity, 100mm blockwork
PARTY WALLS	U=0.0W/m²K Party walls to be constructed in accordance Robust Details. Fully fill party walls EWT-2
FLAT CEILING	U=0.14W/m²K with 100mm Earthwool 44 between rafters and 1 layer of 200mm Earthwool 44 over the joists.
SLOPED CEILING	U=0.17 W/m²K with 120mm mineral wool Kingspan TP10 or equivalent between rafters and 35mm Kingspan TP10 or equivalent underneath with 12.5mm plasterboard.
GROUND FLOOR	U=0.17W/m² K based on 150mm Concrete solid slab with 90mm Celotex GA4000 and 60mm sand cement screed

KEY PARAMETERS

AIR TIGHTNESS	<p>100% Air Testing required</p> <p>The following plots will require Air Test results:</p> <p>Plot 1 Required 4m³/(h.m²)@50Pa</p> <p>Plot 2 Required 4.5</p> <p>Plot 3 Required 4.5</p> <p>Plot 4 Required 4.5</p>
PRIMARY FUEL	ELECTRIC
HEATING	AIR SOURCE HEAT PUMP
CONTROLS	Programmer and at least 2 Thermostats
HOT WATER	HWC assumed 170 litre and 1.45 kWh/day heat loss
SECONDARY HEATING	Log Burning appliance - assumed default efficiency 65%
VENTILATION	Mechanical Ventilation
THERMAL BRIDGING*	<p>Accredited Construction details calculated and applied. Copy of ACDs should be provided on completion.</p> <p><i>*The Contractor is to obtain a copy of Accredited Construction Details for Part L published on the Planning Portal website, which have been developed to assist the contractor to achieve the performance standards required to demonstrate compliance with the energy efficiency requirements of the Building Regulations. Additional details are also provided by the Energy Savings Trust, known as Enhanced Accredited Details, which give improved performance beyond the basic requirements.</i></p> <p><i>It is recommended that the Contractor obtains copies of these details and familiarises themselves with the techniques to improve construction.</i></p>
WINDOWS	U=1.6W/m²K including french doors
DOORS	U=1.6W/m²K
LIGHTING	100% low energy

RESULTS

PLOT 1

SAP RATING = 78

EI (Environmental Impact) Rating = 80

DER 23.29kg C02/m2/yr (Dwelling Emission Rate - must be lower than TER)

TER 27.14kg C02/m2/yr (Target Emission Rate)

DFEE 56.85 kWh/m2/yr (Dwelling Fabric Energy Efficiency - must be lower than TFEE)

TFEE 56.86 kWh/m2/yr (Target Fabric Energy Efficiency)

PLOT 2

SAP RATING = 78

EI (Environmental Impact) Rating = 81

DER 22.1kg C02/m2/yr (Dwelling Emission Rate - must be lower than TER)

TER 25.85kg C02/m2/yr (Target Emission Rate)

DFEE 52.08 kWh/m2/yr (Dwelling Fabric Energy Efficiency - must be lower than TFEE)

TFEE 52.13 kWh/m2/yr (Target Fabric Energy Efficiency)

PLOT 3

SAP RATING = 79

EI (Environmental Impact) Rating = 81

DER 22.1 kg C02/m2/yr (Dwelling Emission Rate - must be lower than TER)

TER 25.85 kg C02/m2/yr (Target Emission Rate)

DFEE 52.08 kWh/m2/yr (Dwelling Fabric Energy Efficiency - must be lower than TFEE)

TFEE 52.13 kWh/m2/yr (Target Fabric Energy Efficiency)

PLOT 4

SAP RATING = 78

EI (Environmental Impact) Rating = 80

DER 23.18 kg C02/m2/yr (Dwelling Emission Rate - must be lower than TER)

TER 27.14 kg C02/m2/yr (Target Emission Rate)

DFEE 56.15 kWh/m2/yr (Dwelling Fabric Energy Efficiency - must be lower than TFEE)

TFEE 56.31 kWh/m2/yr (Target Fabric Energy Efficiency)

ACHIEVING A PASS RATING IN PART L1A 2013

This is the DESIGN SPECIFICATION and may show assumptions to details not available at time of assessment.