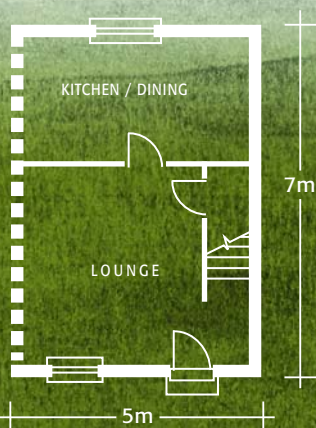


BUILDING A SUSTAINABLE FUTURE

**WALLS - MAIN**

102mm Facing Brick  
 100mm Injected Cavity Wall  
 Insulation **k = 0.040**  
 100mm **Plasmor Aglite Block**  
 12.5mm Plasterboard on dabs

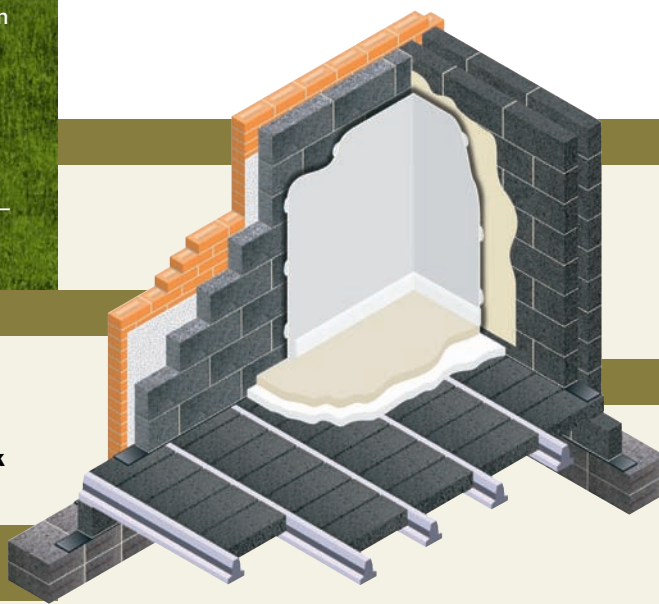
**ROBUST DETAILS  
PARTY WALL EWM-4**

12.5mm Plasterboard on dabs  
 8mm Scratch Finish  
 100mm **Plasmor Stranlite**  
 75mm Clear Cavity  
 100mm **Plasmor Stranlite**  
 8mm Scratch Finish  
 12.5mm Plasterboard on dabs  
 Using Approved Document  
 E Wall Ties 'Tie Type A'  
 Butterfly Ties

Shown here is a SAP 2005 calculation for a typical **3 bedroom semi detached house** which demonstrates compliance with the new Part L requirements. By incorporating **AGLITE** and **STRANLITE** blocks into the calculations, compliance is straightforward and Plasmor concrete blocks also provide extra benefits - excellent sound insulation, fire resistance, durability and a cost effective choice for all types of construction.

**FACTORS EMPLOYED IN ACHIEVING TYPICAL COMPLIANCE**

- **1 Door** UPVC or Wood, semi glazed to achieve **U = 2.40**
- **Warm Living Area** = **25m<sup>2</sup>**
- **Total Opening** = **18%** of floor area
- **3 x Low Energy Lights** minimum required
- **Windows** UPVC or Wood, Low E Glass /16mm air gap to achieve **U = 1.80**
- **Glazing** = **12.62m<sup>2</sup>**  
 6 x 0.9m<sup>2</sup> x 1.35m<sup>2</sup>  
 2 x 0.9m<sup>2</sup> x 0.9m<sup>2</sup>  
 1 x 1.77m<sup>2</sup> x 2.1m<sup>2</sup>
- **Air Pressure** set to **10Pa/m<sup>2</sup>**

**ROOF SLOPE**

150mm Roll  
**k = 0.040** over  
 100mm Roll  
**k = 0.040** between  
 12.5mm Plasterboard

**FLOOR**

**Block and Beam**  
 100mm **Stranlite JB1 Flooring Block**  
 60mm Insulated Board  
**k = 0.022**  
 50mm Screed

**HEATING**

90.1% Efficient Gas Combi Boiler  
**Controls**  
 Thermostatic Radiator Valves  
 - Room Stat and Programmer  
**Secondary Heating**  
 85% Efficient Condensing Gas Fire

**TYPICAL RESULT****TER 24.47****DER 24.28**

Where DER < TER and  
 General Requirements  
 Compliant

**= PASS****FOR 25% IMPROVEMENT** see over

**Robust Details Wall Type EWM-2** is applicable with this construction type using lightweight plaster. TER & DER will need re-calculating

TECHNICAL HELPLINES: 01977 673221 ■ 01767 314545

## OPTIONS TO IMPROVE YOUR PASS AND REDUCE YOUR CARBON FOOTPRINT

### SOLUTION 1

- Change the Gas Boiler to a 350% efficient Air to Water Heat Pump
- Under Floor Heating to be specified

TYPICAL RESULT

**TER = 24.48**

**DER = 16.74**

Where DER < TER and General Requirements Compliant

**= PASS**

**31% IMPROVEMENT**

### SOLUTION 2

- Change Gas Boiler to a 350% efficient Air to Water Heat Pump
- Under Floor Heating to be specified
- Remove the Gas Fire

The list shows examples of how 'improvements' can be easily made to a dwelling. This data sheet cannot be used to show compliance with SAP and must be calculated on an independent basis by an authorised assessor.

TYPICAL RESULT

**TER = 34.77**

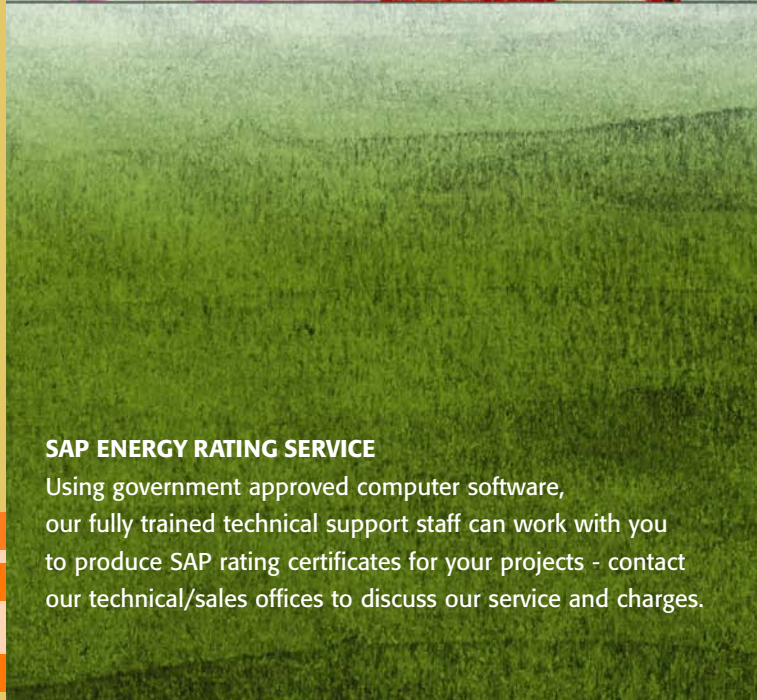
**DER = 17.65**

Where DER < TER and General Requirements Compliant

**= PASS**

**48% IMPROVEMENT**

This level of improvement will achieve **Code For Sustainable Homes Level 3** compliance



#### SAP ENERGY RATING SERVICE

Using government approved computer software, our fully trained technical support staff can work with you to produce SAP rating certificates for your projects - contact our technical/sales offices to discuss our service and charges.