

Site Name	The Sideings	Job Reference	ERDSAP27025			
Client Name	Gower Homes Limited		Is NHBC carrying out the Building Control?	Yes	No of Units on Site	47
Other energy specific requirements						

Links

[BFRC](#)
[SAP Appendix Q](#)



Specification Section

SAP Element	Part L1a Specification	Source of Information	Notes
Thermal Mass Parameter	Low - Assumption based on SAP Conventions - Table 1	Assumed	
Ground Floor	150mm RC Slab on 150mm Xtratherm insulation.	As Per Discussion	As per telephone conversation with Michael Forgrave on 19th March 2014
Main Wall - Houses	103mm facing brickwork, 70mm clear cavity, Protect TF200 Thermo low emissivity Breather membrane, 9mm OSB, 140mm timber frame willed with 140mm mineral wool (k-0.032 WmK or better), plasterboard - achieving a U-value of 0.22 W/m²K	As Per Discussion	As per telephone conversation with Michael Forgrave on 13th March 2014
Party Walls - As per telephone conversation with Michael Forgrave on 13th March 2014	Fully filled cavity with effective sealing at all exposed edges and in line with insulation layers in abutting elements - Party Wall U-value - 0.00 Watts/m²K	As Per Discussion	Filling / sealing' of cavities must be done in accordance with the MIMA document "Preventing Thermal Bypasses in Party Separating walls, Design Guide, 2010 Building Regulations Issue
Pitched Roof - Insulation at joist level	200mm insulation (conductivity k= 0.04 W/mK) between joists and 200mm crosslaid over. U-value = 0.11 W/m²K	E-mail	Assumed Bay Roof Insulated to the same standard
Windows	U-value - (1.4) Watts/m²K Transmittance Factor 'g' - (0.63 - SAP Default) Frame Factor (FF) - (0.7 - SAP Default)	As Per Discussion	As per telephone conversation with Michael Forgrave on 19th March 2014
Doors	U-value = 1.32 W/m²K	As Per Discussion	As per telephone conversation with Michael Forgrave on 13th March 2014
Air Permeability Rate Please Note: Your Design Air Permeability and As-Built Air Permeability may have an impact on the background ventilation requirements set by Part F. You will need to specify the amount of background ventilation in accordance with Table 5.2a (B) for dwellings with a design air permeability leakier than 5.0m3/(h.m2) with the proviso that the as built air permeability is leakier than 3.0m3/(h.m2). Alternatively specify the amount of background ventilation in accordance with table 5.2a (A) for any design air permeability. Failure to meet these requirements may result in additional pressure testing and/or other remedial measures.	Denbigh (Plots 3-6, 11, 18 & 19), Durham (Plots 33, 34, 37, 39 & 44), Hampton (Plots 32, 35 & 41) Kendal (Plots 1, 2, 9, 10, 12-16, 20-23, 25, 26 & 30)- Set at (5) m³/m² per hour as tested at 50 Pa (see notes) for the basis of B Regs submissions on the basis that pressure tests will be carried out on (all properties) with the aim of achieving better than (5) m³hm². All other Plots (Durham - Plot 40, Hampton - Plots 36, 38 & 43, Kendal - Plots 7, 8, 17, 24, 27, 29, 46, 47, Whitby - Plots 28, 31, 42 & 45) - Set at (7) m³/m² per hour as tested at 50 Pa (see notes) for the basis of B Regs submissions on the basis that pressure tests will be carried out on (a selection of properties) with the aim of achieving better than (5) m³hm². Sample Pressure Testing - Where the tested dwellings do not achieve (5) m³/hm² or better then this will raise the air permeability figure applied on the untested plots to greater than the design of (7) m³/hm² , with the potential for non-compliance with Criterion 1 of Part L1a.	As Per Discussion	Extract from Part L1a 2010 regarding Air Leakage Testing and Achieving the TER [at completion stage]: The assessed air permeability. The assessed air permeability shall be determined as follows: i) Where the dwelling has been pressure tested, the assessed air permeability is the measured air permeability; ii) <u>Where the dwelling has not been tested, the assessed air permeability is the average test result obtained from other dwellings of the same dwelling type on the development increased by a margin of 2.00 m³/m² per hour at 50 Pa;</u> iii) On small developments (see par 5.23) where the builder has opted to avoid testing, the assessed air permeability is the value of 15 m³/m² per hour at 50 Pa.
Ventilation	System 1 - Background Ventilators and Intermittent Extract Fans	Assumed	It is assumed that the continuous mechanical ventilation system installer will be part of a Competent Persons Scheme, and the Registration Number will be provided as part of the Installation Checklists at As-Built Stage. If the installer is not part of a Competent Persons Scheme, a penalty will be applied to the DER, with the potential for non-compliance with Criterion 1 of Part L1a.
Summer Overheating Minimum Requirements	Fully open half the time (upper floor windows can be left open all night)	Required to Comply with Part L1a 2010	N.B. To meet the summer overheating requirements of Part L1a windows may be required to be fully openable. Additional security measures may be required in certain types of dwelling (e.g. ground floor flats & single storey houses). These requirements must be confirmed with Building Control.
Primary Heating System	Baxi Duo-tec 2 Combi 28 GA	Assumed	
Heating Controls	Time & temperature zone control with Delayed Start Thermostat	Assumed	N.B. Heating designs must comply with minimum standards as set out in the Domestic Building Compliance Guide 2010.
Emitter	Radiators	Assumed	
Compensator	Weather Compensators	Assumed	As per telephone conversation with Michael Forgrave on 19th March 2014
Hot Water	From Combi	Assumed	
Water Usage	Equal to or less than 105 litres/person/day (Code for Sustainable Homes (Nov 10) Level 3-4 Minimum Standard)	Required to Comply with Code for Sustainable Homes Requirements	Extract from Part G 2010 In order to meet Part G minimum requirements "The Potential consumption of wholesome water by persons occupying a dwelling to which this regulation applies must not exceed 125 litres per person per day, calculated in accordance with the methodology set out in the document "The Water Efficiency Calculator for New Dwellings".
Secondary Heating	None	Assumed	
Solar Water Heating	None	Assumed	
Solar - PV	None	Assumed	
Internal Lighting	100% low energy light fittings	Assumed	
Thermal Bridging	Adoption of Accredited Construction Details	Assumed	
Appendix Q	Plots 3-6, 10, 11, 13, 18-19 & 22 - Rechoh-Vert ShowerSave RV3 System A	As Per Discussion	

Results Section

Plot Number	URN	Description - If stepped/staggered terraced houses/bungalows or house with an internal garage or drive through please select staggered & complete R-value Calc to obtain ENE2 Credits	Minimum Energy Rating Target	FEEs Achieved	DER Achieved	Part L1a TER	Total Floor Area - m²	House Type Reference	Improvement over Regs	Code Target Emission Rate	Ene 1 - Credits - Code 2010 (% improvement in Resultant DER / TER rounded to 1 decimal place)	Applicable Ene1 Code 2010 level - (% improvement in Resultant DER / TER rounded to 1 decimal place)	Ene 2 - Credits Code 2010 - (FEE rounded to 1 decimal place)	Applicable Ene2 Code 2010 level - (FEE rounded to 1 decimal place)	kWp of PV - (If Applicable)	Comments
1	27025-0001	Semi-Detached	Code Level 3	50.14	18.34	20.27	64.00	Kendal	9.52%	20.27	1.1	Levels 1-3	5.6	n/a		
2	27025-0002	Semi-Detached	Code Level 3	50.14	18.34	20.27	64.00	Kendal	9.52%	20.27	1.1	Levels 1-3	5.6	n/a		
3	27025-0003	Semi-Detached	Code Level 3	56.22	20.48	23.34	46.90	Denbigh	12.25%	23.34	1.5	Levels 1-3	3.7	n/a		
4	27025-0004	Semi-Detached	Code Level 3	56.22	20.48	23.34	46.90	Denbigh	12.25%	23.34	1.5	Levels 1-3	3.7	n/a		
5	27025-0005	Semi-Detached	Code Level 3	55.46	20.28	23.34	46.90	Denbigh	13.11%	23.34	1.6	Levels 1-3	3.9	n/a		
6	27025-0006	Semi-Detached	Code Level 3	55.46	20.28	23.34	46.90	Denbigh	13.11%	23.34	1.6	Levels 1-3	3.9	n/a		
7	27025-0007	Semi-Detached	Code Level 3	52.77	18.64	20.27	64.00	Kendal	8.04%	20.27	1.0	Levels 1-3	4.7	n/a		
8	27025-0008	Semi-Detached	Code Level 3	52.29	18.55	20.27	64.00	Kendal	8.49%	20.27	1.0	Levels 1-3	4.9	n/a		
9	27025-0009	End Terrace	Code Level 3	50.42	18.4	20.27	64.00	Kendal	9.23%	20.27	1.1	Levels 1-3	5.5	n/a		
10	27025-0010	Mid-Terrace	Code Level 3	43.07	15.82	18.21	64.00	Kendal	13.12%	18.21	1.6	Levels 1-3	4.9	n/a		
11	27025-0011	End Terrace	Code Level 3	56.22	20.48	23.34	46.90	Denbigh	12.25%	23.34	1.5	Levels 1-3	3.7	n/a		
12	27025-0012	End Terrace	Code Level 3	50.14	18.34	20.27	64.00	Kendal	9.52%	20.27	1.1	Levels 1-3	5.6	n/a		
13	27025-0013	Mid-Terrace	Code Level 3	43.07	15.82	18.21	64.00	Kendal	13.12%	18.21	1.6	Levels 1-3	4.9	n/a		
14	27025-0014	End Terrace	Code Level 3	50.42	18.4	20.27	64.00	Kendal	9.23%	20.27	1.1	Levels 1-3	5.5	n/a		
15	27025-0015	Semi-Detached	Code Level 3	50.14	18.34	20.27	64.00	Kendal	9.52%	20.27	1.1	Levels 1-3	5.6	n/a		
16	27025-0016	Semi-Detached	Code Level 3	50.14	18.34	20.27	64.00	Kendal	9.52%	20.27	1.1	Levels 1-3	5.6	n/a		
17	27025-0017	End Terrace	Code Level 3	54.45	19	20.7	64.00	Kendal	8.21%	20.70	1.0	Levels 1-3	4.1	n/a		
18	27025-0018	Mid-Terrace	Code Level 3	48.59	18.9	20.82	46.90	Denbigh	9.22%	20.82	1.1	Levels 1-3	0.0	n/a		
19	27025-0019	Mid-Terrace	Code Level 3	46.76	18.54	20.39	46.90	Denbigh	9.07%	20.39	1.1	Levels 1-3	3.4	n/a		
20	27025-0020	End Terrace	Code Level 3	51.02	18.36	20.27	64.00	Kendal	9.42%	20.27	1.1	Levels 1-3	5.3	n/a		
21	27025-0021	End Terrace	Code Level 3	51.08	18.38	20.27	64.00	Kendal	9.32%	20.27	1.1	Levels 1-3	5.3	n/a		
22	27025-0022	Mid-Terrace	Code Level 3	43.35	15.82	18.21	64.00	Kendal	13.12%	18.21	1.6	Levels 1-3	4.8	n/a		
23	27025-0023	End Terrace	Code Level 3	51.02	18.36	20.27	64.00	Kendal	9.42%	20.27	1.1	Levels 1-3	5.3	n/a		
24	27025-0024	End Terrace	Code Level 3	51.77	18.49	20.27	64.00	Kendal	8.78%	20.27	1.1	Levels 1-3	5	n/a		
25	27025-0025	Mid-Terrace	Code Level 3	41.98	16.7	18.21	64.00	Kendal	8.29%	18.21	1.0	Levels 1-3	5.5	n/a		
26	27025-0026	Mid-Terrace	Code Level 3	41.98	16.7	18.21	64.00	Kendal	8.29%	18.21	1.0	Levels 1-3	5.5	n/a		
27	27025-0027	End Terrace	Code Level 3	51.44	18.42	20.27	64.00	Kendal	9.13%	20.27	1.1	Levels 1-3	5.2	n/a		
28	27025-0028	Detached	Code Level 3	57.78	18.77	20.92	79.00	Whitby	10.28%	20.92	1.2	Levels 1-3	3.4	n/a		
29	27025-0029	Semi-Detached	Code Level 3	52.53	18.64	20.27	64.00	Kendal	8.04%	20.27	1.0	Levels 1-3	4.8	n/a		
30	27025-0030	Semi-Detached	Code Level 3	51.08	18.38	20.27	64.00	Kendal	9.32%	20.27	1.1	Levels 1-3	5.3	n/a		
31	27025-0031	Detached	Code Level 3	57.78	18.77	20.92	79.00	Whitby	10.28%	20.92	1.2	Levels 1-3	3.4	n/a		
32	27025-0032	Semi-Detached	Code Level 3	51.05	17.61	19.46	73.05	Hampton	9.51%	19.46	1.1	Levels 1-3	5.3	n/a		
33	27025-0033	Semi-Detached	Code Level 3	49.89	17.38	19.14	76.84	Durham	9.20%	19.14	1.1	Levels 1-3	5.7	n/a		
34	27025-0034	Semi-Detached	Code Level 3	49.31	17.27	19.14	76.84	Durham	9.77%	19.14	1.2	Levels 1-3	5.9	n/a		
35	27025-0035	Semi-Detached	Code Level 3	51.05	17.61	19.46	73.05	Hampton	9.51%	19.46	1.1	Levels 1-3	5.3	n/a		
36	27025-0036	Semi-Detached	Code Level 3	52.89	17.9	19.46	73.05	Hampton	8.02%	19.46	1.0	Levels 1-3	4.7	n/a		
37	27025-0037	Semi-Detached	Code Level 3	50.34	17.34	19.14	76.84	Durham	9.40%	19.14	1.1	Levels 1-3	5.5	n/a		
38	27025-0038	Semi-Detached	Code Level 3	52.89	17.9	19.46	73.05	Hampton	8.02%	19.46	1.0	Levels 1-3	4.7	n/a		
39	27025-0039	Semi-Detached	Code Level 3	50.34	17.34	19.14	76.84	Durham	9.40%	19.14	1.1	Levels 1-3	5.5	n/a		
40	27025-0040	Semi-Detached	Code Level 3	51.47	17.53	19.14	76.84	Durham	8.41%	19.14	1.0	Levels 1-3	5.1	n/a		
41	27025-0041	Semi-Detached	Code Level 3	51.3	17.62	19.46	73.05	Hampton	9.46%	19.46	1.1	Levels 1-3	5.2	n/a		
42	27025-0042	Detached	Code Level 3	57.62	18.73	20.92	79.00	Whitby	10.47%	20.92	1.3	Levels 1-3	3.4	n/a		
43	27025-0043	Semi-Detached	Code Level 3	52.89	17.9	19.46	73.05	Hampton	8.02%	19.46	1.0	Levels 1-3	4.7	n/a		
44	27025-0044	Semi-Detached	Code Level 3	50.34	17.34	19.14	76.84	Durham	9.40%	19.14	1.1	Levels 1-3	5.5	n/a		
45	27025-0045	Detached	Code Level 3	57.62	18.73	20.92	79.00	Whitby	10.47%	20.92	1.3	Levels 1-3	3.4	n/a		
46	27025-0046	Semi-Detached	Code Level 3	52.29	18.55	20.27	64.00	Kendal	8.49%	20.27	1.0	Levels 1-3	4.9	n/a		
47	27025-0047	Semi-Detached	Code Level 3	52.77	18.64	20.27	64.00	Kendal	8.04%	20.27	1.0	Levels 1-3	4.7	n/a		