

009838 – Woolley Colliery Road – Homes By Honey – SAP Calculations Masonry Specification under Part L1 2021.

Following the Design Stage SAP Calculations undertaken on behalf of Homes by Honey for the Part L 2021 development of Woolley Colliery Road, below details the specification information as used within the SAP10 calculations.

Element	U-value	Construction
External Wall	0.19w/m <sup>2</sup> k	103mm Brickwork 150mm Knauf Supafil 34 (0.034) 100mm Plasmor Aglite Blockwork (0.31) 12.5mm Plasterboard on Dabs  <i>Honey_150mm Supafil® 34_Aglite_0.19</i>
Garage Wall (Solid)	0.28w/m <sup>2</sup> k plus shelter factor	9.5mm Knauf Wallboard (0.19)/ 65.5mm Knauf PIR Laminate (0.023) on dabs 100mm Plasmor Aglite Blockwork (0.31) 12.5mm Plasterboard on dabs
Garage Wall (Cavity)	0.19w/m <sup>2</sup> k plus shelter factor	100mm Plasmor Aglite Blockwork (0.31) 150mm Knauf Supafil 34 (0.034) 100mm Plasmor Aglite Blockwork (0.31) 12.5mm Plasterboard on Dabs
Gable Spandrel Wall	0.23w/m <sup>2</sup> k	103mm Brickwork 50mm Cavity 9mm OSB 140mm Knauf Frametherm 35 between timbers 12.5mm Plasterboard  <i>NTSROOF 140mm Spandrel Panel U-value (0.23)</i>
Lightwell Cheeks <i>Primrose HT</i>	0.31w/m <sup>2</sup> k	150mm Knauf Earthwood Loftroll 44 between timbers (38mm @ 450 centres) 15mm Plasterboard
Party Wall	0.00w/m <sup>2</sup> k	Fully Filled with Effective Sealing Plasmor Aglite Blockwork (0.31)

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Party Wall – Gable Party Wall	0.00w/m <sup>2</sup> k	Fully Filled with Effective Sealing Twin Timber Frame
Ground Floor – Lynx Warmfloor	0.10- 0.12w/m <sup>2</sup> k	Lynx Warmfloor System 150mm Grey 75mm Screed  <i>HT specific u-values provided by Lynx</i>
Floor Above Garage	0.14w/m <sup>2</sup> k including shelter factor	22mm Chipboard 300mm Joists with 300mm Knauf Loft Roll 44 (0.040) between Flange/Fibreboard Web 15mm Plasterboard  <i>Honey_2x150mm Loft Roll 44_Floor over Garage_0.14 (600mm Centres)</i>
Floor Above Porch	0.15w/m <sup>2</sup> k	22mm Chipboard 300mm Joists with 300mm Knauf Loft Roll 44 (0.040) between Flange/Fibreboard Web (see <i>Honey_2x150mm Loft Roll 44_Floor over Garage_0.14 (600mm Centres)</i> For bridging) 15mm OSB
Cold Roof Construction (incl flat ceiling of 2 <sup>nd</sup> Floor – Primrose)	0.09w/m <sup>2</sup> k	400mm Knauf Earthwood Loftroll 44 100mm Knauf Earthwood Loftroll 44 between timbers 15mm Plasterboard  <i>Honey_Cold Roof_500mm Loft Roll 44_0.09</i>
Sloped Roof Construction	0.16w/m <sup>2</sup> k	240mm Knauf Factory Clad 40 between timbers 9mm OSB 22mm Unventilate Air Space 12.5mm Plasterboard  <i>NTSROOF 240mm Roof Cassettes U-value (0.16)</i>
Lightwell Sloped Ceiling	0.09w/m <sup>2</sup> k	400mm Knauf Earthwood Loftroll 44

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<i>Primrose HT</i>		100mm Knauf Earthwood Loftroll 44 between timbers (38mm @ 450 centres) 15mm Plasterboard
Front Entrance Doors (Partial Glazed)	1.20w/m <sup>2</sup> k	Solid Doors uPVC Manufacturer's Declaration (default frame factor)  <i>Portico - U value - Door 1 - Monza Augusta</i>
Front Entrance Doors (Solid)	0.93w/m <sup>2</sup> k	Solid Doors uPVC Manufacturer's Declaration (default frame factor)  <i>Portico - U value - Door 2 - Monza Solid</i>
Rear/Side Doors (Half Glazed)	1.50w/m <sup>2</sup> k	Half Glazed uPVC Manufacturer's Declaration (default g-value and frame factor)  <i>Portico - U value - Door 3 - Lytham Farmhouse</i>
Side Window (To Front Entrance Door – Solid)	1.30w/m <sup>2</sup> k	Double Glazed Low-E Soft 0.05 uPVC Manufacturer's Declaration (default g-value and frame factor)  <i>Portico - U value Fixed Light</i>
Windows	1.22w/m <sup>2</sup> k	BFRC Double Glazed Low-E Soft 0.05, G-value 0.52 uPVC
Patio Doors	1.30w/m <sup>2</sup> k	BFRC Double Glazed Low-E Soft 0.05, G-value 0.31 uPVC
Roof Windows	1.10w/m <sup>2</sup> k	Velux GPU PK08 and GGU MK04 (--68 spec)

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		Triple Glazed Low-E Soft 0.05 uPVC Manufacturer's Declaration (0.49 g-value and default frame factor)
Boiler	Gas Combi	Ideal Logic Code Combi ESP1 38 (18123)
Heating Controls	-	Time, temperature & zone controls Boiler Interlock and Delayed start thermostat.  Smart Electric and Gas Meter
Heating Emitter	-	Radiators
Showers	-	All Main Bathrooms and En-Suites to have thermostatic shower - 8 l/min
Ventilation	dMEV	Greenwood Unity CV2.1 (500787) System 3 Flexible Duct
Air pressure test	4.00	Design figure. Site wide air testing
Lighting	100%	Internal Lighting (Pendants/Batten) Power = 8W Efficacy = 97.5lm/W  Internal Lighting (Downlights) Power = 5W Efficacy = 96lm/W
Thermal Bridging	Bespoke	Bespoke psi values calculated by The FES Group used for full fill cavity wall using blockwork with a thermal conductivity of 0.31 & Knauf Supafil 34 at 150mm. - E1, E2, E3, E4, E5, E6, E10, E12, E16, E17, E18, E20, E21, E25, P1, P4  Bespoke psi values calculated by Knauf used for room in roof junctions

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		- E6, E11, E12, E13, P4, P5, R1, R2, R3, R6																																																
PV	-	<p><i>Please see PV Appendix for PV input at worse case orientation - East. Assumed 0.40kWp per panel. Little to no overshadowing.</i></p> <table border="1"> <thead> <tr> <th>Housetype</th> <th>kWp</th> </tr> </thead> <tbody> <tr><td>2B3P – SEMI-END</td><td>1.20</td></tr> <tr><td>2B3P – MID</td><td>1.20</td></tr> <tr><td>2B4P Corner – SEMI-END</td><td>1.60</td></tr> <tr><td>3B4P – SEMI-END</td><td>1.60</td></tr> <tr><td>3B4P – MID</td><td>1.60</td></tr> <tr><td>3B5P – END</td><td>1.60</td></tr> <tr><td>3B5P – MID</td><td>1.60</td></tr> <tr><td>Avocado – SEMI-END</td><td>1.20</td></tr> <tr><td>Avocado – MID</td><td>1.20</td></tr> <tr><td>Blueberry – SEMI-END</td><td>1.20</td></tr> <tr><td>Chestnut – SEMI</td><td>1.60</td></tr> <tr><td>Clover – DET</td><td>1.60</td></tr> <tr><td>Clover – SEMI</td><td>1.60</td></tr> <tr><td>Dandelion – DET</td><td>1.60</td></tr> <tr><td>Eucalyptus – DET</td><td>2.00</td></tr> <tr><td>Jarrah – DET</td><td>2.00</td></tr> <tr><td>Lavender – DET</td><td>2.40</td></tr> <tr><td>Linden CR – DET</td><td>2.00</td></tr> <tr><td>Macadamia – SEMI</td><td>1.20</td></tr> <tr><td>Neem – DET</td><td>2.40</td></tr> <tr><td>Poppy – DET</td><td>2.80</td></tr> <tr><td>Primrose – DET</td><td>2.00</td></tr> <tr><td>Rosemary – DET</td><td>2.40</td></tr> </tbody> </table> <p><i>The amount of PV required may vary on plot specific calculations.</i></p>	Housetype	kWp	2B3P – SEMI-END	1.20	2B3P – MID	1.20	2B4P Corner – SEMI-END	1.60	3B4P – SEMI-END	1.60	3B4P – MID	1.60	3B5P – END	1.60	3B5P – MID	1.60	Avocado – SEMI-END	1.20	Avocado – MID	1.20	Blueberry – SEMI-END	1.20	Chestnut – SEMI	1.60	Clover – DET	1.60	Clover – SEMI	1.60	Dandelion – DET	1.60	Eucalyptus – DET	2.00	Jarrah – DET	2.00	Lavender – DET	2.40	Linden CR – DET	2.00	Macadamia – SEMI	1.20	Neem – DET	2.40	Poppy – DET	2.80	Primrose – DET	2.00	Rosemary – DET	2.40
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We can confirm that the above specification with the use of Bespoke details used for a full fill brick and block cavity wall with blockwork with a thermal conductivity 0.31 does

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achieve compliance across the 2022 development of standard house types in SAP10 under Part L1 2021

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