

PART L : JUNE 2022

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PART L : JUNE 2022 : NEW DWELLINGS

SPECIFICATION OPTION 1 : GAS + SOLAR PV

External Walls	U=0.18W/m ² K	Example : 300mm wide cavity wall with 90mm Kingspan Kooltherm K106 cavity insulation
Party Walls	U=0.00W/m ² K	Example : 275mm cavity wall with 75mm acoustic mineral wool in cavity
Floors	U=0.13W/m ² K	Example : 140mm PIR insulation (concrete floor)
Roofs	U=0.11W/m ² K	Example : 400mm mineral wool insulation quilt
Windows	U=1.20W/m ² K	Doors = 1.00W/m ² K (windows/doors < 25% of total floor area)
Air Permeability	5m ³ /h/m ²	
Heating	Gas Boiler	89.5% efficiency (zoned heating controls)
Ventilation	Natural	Part F System 1 = background + intermittent extract fans
Lighting	Low Energy	Fixed lighting capacity (lm) = 185 x total floor area, efficacy = 80 lm/W
WWHR	Required	Wastewater heat recovery (showers)
Solar PV	Required	Houses = Footprint (m ²) x 40% / 6.5 Flats = Floor Area of Flat (m ²) x 40% / (6.5 x No of Stories in Block)

SPECIFICATION OPTION 2 : AIR SOURCE HEAT PUMP (ASHP)

External Walls	U=0.18W/m ² K	Example : 300mm wide cavity wall with 90mm Kingspan Kooltherm K106 cavity insulation
Party Walls	U=0.00W/m ² K	Example : 275mm cavity wall with 75mm acoustic mineral wool in cavity
Floors	U=0.13W/m ² K	Example : 140mm PIR insulation (concrete floor)
Roofs	U=0.11W/m ² K	Example : 400mm mineral wool insulation quilt
Windows	U=1.20W/m ² K	Doors = 1.00W/m ² K (windows/doors < 25% of total floor area)
Air Permeability	5m ³ /h/m ²	
Heating	ASHP (Electric)	Minimum 250% efficient (zoned heating control). ASHP or GSHP.
Ventilation	Natural	Part F System 1 = background + intermittent extract fans
Lighting	Low Energy	Fixed lighting capacity (lm) = 185 x total floor area, efficacy = 80 lm/W
WWHR	Not Required	
Solar PV	Not Required	

PART L : JUNE 2022 : DWELINGS (CHANGE OF USE)

SPECIFICATION

External Walls (Existing-Lined)	U=0.30W/m ² K	Example 1 : Solid brick wall + 62.5mm Kingspan Kooltherm K118 insulated plasterboard Example 2 : cavity brick wall + 57.5mm Kingspan Kooltherm K118 insulated plasterboard
External Walls (Existing-CWI)	U=0.55W/m ² K	Where cavity walls can be injected with insulation (otherwise line internally as above)
External Walls (New)	U=0.18W/m ² K	Example : 300mm wide cavity wall with 90mm Kingspan Kooltherm K106 cavity insulation
Ground Floors (Existing)	U=0.25W/m ² K	Example : 70mm PIR insulation (concrete floor). Insulation may not be needed in larger buildings or where adding insulation is not practical.
Ground Floors (New)	U=0.18W/m ² K	Example : 100mm PIR insulation (concrete floor)
Roofs (Lofts)	U=0.15W/m ² K	Example : 400mm mineral wool insulation quilt (150mm + 150mm cross-laid)
Roofs (Skeilings)	U=0.15W/m ² K	Example : 100mm PIR insulation between rafters + 62.5mm Kingspan Kooltherm K118
Roofs (Flat)	U=0.15W/m ² K	Example : 140mm PIR insulation over roof deck (warm roof)
Windows/Doors	U=1.40W/m ² K	Note : If timber frame the U-value may be 1.60W/m ² K
Heating	As preferred	Any suitable and compliant heating system possible (ie gas or electric etc)
Ventilation	Natural	Part F System 1 = background + intermittent extract fans (or as required to meet Part F)
Lighting	Low Energy	Fixed lighting capacity (lm) = 185 x total floor area, efficacy = 80 lm/W
Solar PV	Not Required	It is possible, however, that adding solar pv may allow the above to be relaxed

NOTES

External Walls (Existing)	U=0.70W/m ² K	If the existing external wall has some existing insulation (typically buildings less than 40 years old) it may not be necessary to add any insulation.
Ground Floors	U=0.70W/m ² K	The existing ground floor may not need to be insulated if it meets the threshold U-value of 0.70W/m ² K, or adding insulation is not possible.
Roofs	U=0.35W/m ² K	Where an existing roof is already insulated to a reasonable standard, such as 150mm mineral wool quilt in lofts, or 75mm PIR in rafters, adding more insulation may not be necessary.

PART L : JUNE 2022 : DWELINGS (EXTENSIONS TO DWELLINGS)

SPECIFICATION

External Walls	U=0.18W/m ² K	Example 1 : 300mm wide cavity wall with 90mm Kingspan Kooltherm K106 cavity insulation Example 2 : 350mm cavity wall with 150mm Dritherm 32 insulation (100mm Celcon block)
Ground Floors	U=0.18W/m ² K	Example : 100mm PIR insulation (concrete floor), eg Celotex
Roofs (Lofts)	U=0.15W/m ² K	Example : 400mm mineral wool insulation quilt (150mm + 150mm cross-laid)
Roofs (Skeilings)	U=0.15W/m ² K	Example : 100mm PIR insulation between rafters + 62.5mm Kingspan Kooltherm K118
Roofs (Flat)	U=0.15W/m ² K	Example : 140mm PIR insulation over roof deck (warm roof), eg Celotex
Windows/Doors	U=1.40W/m ² K	Note 1 : If timber frame the U-value may be 1.60W/m ² K Note 2 : Total area of windows, external doors and rooflights not to exceed 25% of floor area of extension, plus any openings that no longer exist (see notes below)
Heating	As preferred	Any suitable and compliant heating system possible (eg extension of main system)
Ventilation	Natural	Part F System 1 = background + intermittent extract fans (or as required to meet Part F)
Lighting	Low Energy	Fixed lighting capacity (lm) = 185 x total floor area, efficacy = 80 lm/W
Solar PV	Not Required	

NOTES

Windows/Doors (and rooflights)	> 25% of Floor Area	Where the area of glazing exceeds 25% of floor area of the new extension (plus any openings that are lost), SAP may be used to demonstrate compliance, allowing more design freedom.
Walls/Floors/ Roofs	> U-value Above	Where U-values are higher (worse) than stated above, SAP may be used to demonstrate compliance, allowing more design freedom and flexibility.
Conservatories	Non-Separated	Where a conservatory is not separated from the dwelling, or where the main heating system is extended into the conservatory, it should be treated as an extension as above.
Garden Rooms & Orangeries	Separated or Non-Separated	This type should be treated as an extension (above). It is not considered a conservatory unless at least 75% of the roof and at least 50% of the external wall are glazed.

SAP PROCEDURE (WHERE REQUIRED)

Please contact Therm Energy Ltd for a no obligation quote (enquiries@thermenergy.co.uk, 01903 884357)