



Specialists in Energy Conservation & Building Control

Chalford Office: 39 The Old Common, Chalford, Stroud
Gloucestershire GL6 8HH

M: 07779 341875

T: 01453 731404

E: mark@msbcltd.co.uk

W: www.msbcltd.co.uk

SAP

Questionnaire

Over Glazed Extension

This questionnaire is in 3 sections

Section 1 – Existing House and Services

Section 2 – Construction for extension

Section 3 – Consequential improvements

You only need to complete the tables where the information is not contained on the plans – this is likely to be sections 1 and 3

However you may wish to refer to section 2 as it does give some examples on the levels of insulation that you should be looking to achieve

Client Details

Location	Your details	Example
Client Name		<i>Mark Sheehan</i>
Client e-mail		<i>mark@msbcltd.co.uk</i>
Client Phone		<i>07779 341875</i>
Client Address		<i>39 The Old Common</i>
		<i>Chalford</i>
		<i>Stroud</i>
		<i>Gloucestershire</i>
		<i>GL6 8HH</i>
	<i>Use arrow keys on your keyboard to move between boxes.</i>	

Architect Details (if Applicable)

Location	Your details	Example
Contact		<i>Mark Sheehan</i>
Contact e-mail		<i>mark@msbcltd.co.uk</i>
Contact Phone		<i>07779 341875</i>

Site Address

Location	Your details	Example
		<i>Plot adjacent to</i>
		<i>39 The Old Common</i>
		<i>Chalford</i>
		<i>Stroud</i>
		<i>Gloucestershire</i>
		<i>GL6 8HH</i>

Section 1

Existing house construction and services

It is unlikely that this information will be on the plans so most sections will need to be completed.

Existing House

Age	Enter age band	Age Band
		<i>A - Before 1900</i>
Original House		<i>B- 1900-1929</i>
		<i>C- 1930-1949</i>
Previous Extension (1)		<i>D- 1950-1966</i>
		<i>E- 1967-1975</i>
Previous Extension (2)		<i>F- 1976-1982</i>
		<i>G- 1983-1990</i>
Previous Loft Conversion (3)		<i>H- 1991-1995</i>
		<i>I - 1996-2002</i>
		<i>J- 2003-2006</i>
		<i>K- 2007 onwards</i>
Example		
<i>Original House</i>	<i>A</i>	
<i>Kitchen extension to rear</i>	<i>H</i>	

Floors

Location	Description
<i>Please complete</i>	<i>Please complete</i>
Example	
<i>Original House</i>	<i>Concrete Floor</i>
<i>Kitchen extension to rear</i>	<i>Suspended timber floor with fibre glass between joists</i>

Walls

Location	Description
<i>Please complete</i>	<i>Please complete</i>
Example	
<i>Original House</i>	<i>9" solid brick walls</i>
<i>Kitchen extension to rear</i>	<i>Cavity walls with insulation retro blown in</i>

Roofs

Location	Description
<i>Please complete</i>	<i>Please complete</i>
Example	
<i>Original House</i>	<i>Sloping ceilings measuring 1.5m along the slope – not sure if these are insulated. Flat ceiling in the middle measuring 3m in width which has 100mm of fibreglass</i>
<i>Kitchen extension to rear</i>	<i>150mm of fibreglass in the roof</i>

Openings

Location	Description
<i>Please complete</i>	<i>Please complete</i>
Example	
<i>Original House</i>	<i>Existing windows are all single glazed except the kitchen and front bedrooms which were double glazed around 10 years ago</i>
<i>Kitchen extension to rear</i>	<i>Double glazed</i>

Ventilation

Description
<i>Please complete</i>
Example
<i>The kitchen and en-suite have extractor fans – there will be an extractor fan in the utility extension</i>

Internal Lighting

Description
<i>Please complete</i>
Example
<i>In the existing house we have 30 light fittings, 5 of which are low energy fittings. The extension will have 6 light fittings all of which will be low energy</i>

Electricity Tariff

Your Tariff	Examples
<i>Please complete</i>	<i>7 Hour Off Peak or</i>
	<i>10 Hour Off Peak or</i>
	<i>Standard</i>
	<i>18 Hour</i>
	<i>24 Hour</i>
Use one of the tariffs on the right	

Existing Heating

Existing Heating	Examples
<i>Please complete</i>	<i>Worcester Heatslave 2 Gas Combi Boiler</i>
	<i>Radiators</i>
	<i>TRV's to the radiators and a thermostat in the hallway</i>
<i>Please describe you heating system as best you can</i>	

Existing Secondary Heating

Existing Fire places	Example
<i>Please complete</i>	<i>Wood Burning Stove in lounge</i>
	<i>Open fire place in bedroom</i>
<i>Please describe you heating system as best you can</i>	

Existing Water Heating

Existing Water Heating	Examples
<i>Please complete</i>	<i>From the combination boiler OR Hot water cylinder with loose fitting jacket insulation. Independent time control and a cylinder stat</i>
<i>Please describe you hot water system as best you can</i>	

Solar Panels

Enter details if you currently have any solar panels	Examples
	<i>Solar Panel Area (indicate if Aperture or Gross) Flat Plate Glazed ¹</i>
	<i>n0, a1, A/G ratio - if you can obtain these figures from the supplier then we can include them in the calculation which may give a better result than using default</i>
	<i>South Facing</i>
	<i>45° angle of elevation</i>
	<i>None or little overshadowing ²</i>
	<i>100 litre volume</i>
	<i>Pump electrically powered</i>
	<i>Combined Cylinder</i>

Flat Plate Glazed ¹ - Other options are Evacuated Tube or unglazed.

None or little overshadowing ² - Other options for overshadowing are Heavy, Significant, and Modest - please select the most appropriate for your site.

Photovoltaic Panels

Enter details if you currently have pv panels	Examples
	<i>2.28 KW Peak</i>
	<i>South Facing</i>
	<i>45° angle of elevation</i>
	<i>None or little overshadowing ¹</i>
	<i>45° angle of elevation</i>
	<i>Connected to the dwellings electricity meter</i>
<p><i>The first row you will need to obtain from your pv supplier. The other rows will depend upon their location on your dwelling. It would be usual for the panels to be connected to your own dwelling and not straight back to the grid.</i></p>	

None or little overshadowing ¹ - Other options for overshadowing are Heavy, Significant, and Modest - please select the most appropriate for your site.

Section 2

Extension

In this section you only need to complete the tables where the information is not shown on your plans

Floor Type 1

Location	Your Floor	Example
		<i>Ground Bearing Slab</i>
		<i>50mm Screed</i>
		<i>90mm Celotex</i>
		<i>1200g polythene</i>
		<i>100mm Concrete</i>
<i>Enter location e.g. "extension floor" In box above</i>	<i>Enter description in boxes above in similar way that the example floor on the right has been entered. Use arrow keys on your keyboard to move between boxes.</i>	<i>This floor achieves a U value of 0.22 w/m²k Which is the minimum requirement for an extension – you should be looking to achieve a lower value than this</i>

Floor Type 2

Location	Your Floor	Example
		<i>Ground Bearing Slab</i>
		<i>50mm Screed</i>
		<i>150mm Celotex</i>
		<i>1200g polythene</i>
		<i>100mm Concrete</i>
<i>Enter location e.g. "main floors" In box above</i>	<i>Enter description in boxes above in similar way that the example floor on the right has been entered. Use arrow keys on your keyboard to move between boxes.</i>	<i>This floor achieves a U value of 0.14 w/m²k Which is better than the minimum requirement for an extension and will therefore help you to achieve compliance</i>

Floor Type 3

Location	Your Floor	Example
		<i>Suspended Timber Floor</i>
		<i>19mm Chipboard</i>
		<i>150mm Celotex between 50 x150mm floor joists at 400mm centres</i>
<i>Enter location e.g. "floor to kitchen" In box above</i>	<i>Enter description in boxes above in similar way that the example floor on the right has been entered. Use arrow keys on your keyboard to move between boxes.</i>	<i>This floor achieves a U value of 0.16 w/m²k</i>

Wall Type 1

Location	Your Wall	Example
		100mm facing brick
		100mm Dritherm 37 Standard insulation
		100mm Celcon Standard Blocks
		13mm Plaster finish
Enter location e.g. "front walls to extension" In box above	Enter description in boxes above in similar way that the example floor on the right has been entered. Use arrow keys on your keyboard to move between boxes.	This wall achieves a U value of 0.28 w/m²k Which is the minimum requirement for an extension – you should be looking to achieve a lower value than this

Wall Type 2

Location	Your Wall	Example
		100mm facing brick
		100mm Dritherm 32 Ultimate insulation
		100mm Celcon Solar Blocks
		12.5mm Plasterboard on dabs
		Skim plaster finish
e.g side walls to extension if they differ from the main walls		This wall achieves a U value of 0.23 w/m²k Which is better than the minimum requirement for an extension and will therefore help you to achieve compliance

Wall Type 3

Location	Your Wall	Example
		15mm Timber cladding on battens
		Breather membrane
		12mm plywood
		100mm Celotex between studs
		40mm Celotex on face of studs
		12.5mm plasterboard and skim
e.g Dormer Walls		This wall achieves a U value of 0.18 w/m²k

Roof Type 1

Location	Your Roof	Example
		FLAT CEILINGS
		<i>Trussed Rafters at 600mm centres</i>
		<i>100mm Earthwool Loft Roll 44 laid between the ceiling joists</i>
		<i>200mm Earthwool Loft Roll 44 laid over the ceiling joists at right angles to the 1st layer</i>
		<i>12.5mm plasterboard and skim</i>
<i>Enter location e.g. "flat ceilings" In box above</i>	<i>Enter description in boxes above in similar way that the example floor on the right has been entered. Use arrow keys on your keyboard to move between boxes.</i>	<i>This roof achieves a U value of 0.15 w/m²k Which is marginally better than the minimum requirement for an extension – you should be looking to achieve a lower value than this</i>

Roof Type 2

Location	Your Roof	Example
		SLOPING CEILINGS
		<i>Concrete tiles on breathable felt</i>
		<i>50 x 150mm Rafters at 400mm c/s</i>
		<i>100mm Celotex between rafters</i>
		<i>45mm Celotex on underside of rafters</i>
		<i>12.5mm plasterboard and skim</i>
<i>Enter location e.g. "Sloping Ceilings" In box above</i>	<i>Enter description in boxes above in similar way that the example floor on the right has been entered. Use arrow keys on your keyboard to move between boxes.</i>	<i>This roof achieves a U value of 0.18 w/m²k Which is the minimum requirement for a sloping ceiling – you should be looking to achieve a lower value than this</i>

Roof Type 3

Location	Your Roof	Example
		FLAT ROOF
		<i>Felt and chippings</i>
		<i>15mm plywood</i>
		<i>110mm Celotex on top of joists</i>
		<i>50 x 150mm joists at 400mm centres</i>
		<i>12.5mm plasterboard and skim</i>
<i>Enter location e.g. "Flat roofs to Dormers" In box above</i>	<i>Enter description in boxes above in similar way that the example floor on the right has been entered. Use arrow keys on your keyboard to move between boxes.</i>	<i>This roof achieves a U value of 0.18 w/m²k which is the minimum requirement for a flat roof – you should be looking to achieve a lower value than this</i>

Windows / Doors / Roof lights

Your Openings	Example
	<i>Windows 1.4 w/m²k</i>
	<i>Patio Doors 1.4 w/m²k</i>
	<i>Bi-Fold Doors 1.4 w/m²k</i>
	<i>Doors less than 50% glazed 1.2 w/m²k</i>
	<i>Solid Doors 1.0 w/m²k</i>
	<i>Roof lights 1.4 w/m²k</i>
<i>If you have a supplier in mind they should be able to give you the values – if not we suggest you follow the examples on the right and ensure when ordering the doors and windows that they achieve these values.</i>	<i>These represent the values you need to be aiming for unless you are planning on installing a replacement boiler in which case working to 1.6 w/m²k will probably be ok.</i>

Section 3

Consequential Improvements

We hope that we can demonstrate compliance without the need for any consequential improvements.

However it will assist us if you could indicate which of the following you are undertaking or will be prepared to if required.

Consequential Improvement	Yes we are going to do this	Yes we will do this but only if required
Replace the existing boiler with a new one. (in which case please provide full details if known)		
Replace the existing hot water cylinder with a new one (in which case please provide full details if known)		
Upgrade existing windows (in which case please detail which ones will be replaced,		
Install additional insulation in the existing ceilings		
Install PV Panels		
Install Solar Panels		
Provide a wood burning stove into an existing open fire place (we can only use this if you currently do not have a wood burning stove.		
Provide more low energy light fittings in the existing house		