

# U-Value Guidance

March 2023



# U-Value Guidance Checklist

- All documentation must be property specific and have a fully verifiable address and postcode clearly displayed.
- Verification documents to confirm the Assessor's identity and competency, including their contact details.
- Evidence of suitable expertise and experience can be demonstrated by, but is not limited to, membership of a recognised U-Value calculation competency scheme or OCDEA1 or Level 4 non-domestic energy assessor membership, or any other process recognised by Accreditation Schemes/Approved Organisations and Government.
- U-Value calculations will be checked - Calculations Vs Evidence

# Park Home Guidance

Table S1 : Age bands

Age band	Years of construction			
	England & Wales	Scotland	Northern Ireland	Park home (UK)
A	before 1900	before 1919	before 1919	-
B	1900-1929	1919-1929	1919-1929	-
C	1930-1949	1930-1949	1930-1949	-
D	1950-1966	1950-1964	1950-1973	-
E	1967-1975	1965-1975	1974-1977	-
F	1976-1982	1976-1983	1978-1985	before 1983
G	1983-1990	1984-1991	1986-1991	1983-1995
H	1991-1995	1992-1998	1992-1999	(not applicable)
I	1996-2002	1999-2002	2000-2006	1996-2005
J	2003-2006	2003-2007	(not applicable)	(not applicable)
K	2007-2011	2008-2011	2007-2013	2006 onwards
L	2012 onwards	2012 onwards	2014 onwards	(not applicable)

Table S3 : Wall thickness (mm)

Age band	A	B	C	D	E	F	G	H	I	J, K, L
<b>Wall type</b>										
Stone*	500	500	500	500	450	420	420	420	450	450
Solid brick	220	220	220	220	240	250	270	270	300	300
Cavity**	250	250	250	250	250	260	270	270	300	300
Timber frame	150	150	150	250	270	270	270	270	300	300
Cob	540	540	540	540	540	540	560	560	590	590
System build	250	250	250	250	250	300	300	300	300	300
Park home						50	50		75	100

Park homes can only be entered by 4 age brackets, as seen here in Table S1

These age bands have a significant impact on the EPC rating, For this reason, it is essential to provide accurate wall depths of the Park Home being assessed.

They will also impact on the recommendations generated within RdSAP. A Park Home with as-built insulation at 100mm wall depth is going to be entered as per table S3 age band 2006 onwards which would have been insulated to a high standard “as built” This will not generate a recommendation to insulate and will not have a significant impact on the EPC if it is insulated, due to U-Value being low, to begin with , as per Table S8A.

Table S8A: Wall U-values – Park homes

Age band	F	G	I	K
Park home as built	1.7	1.2	0.7	0.6
Park home with additional insulation	Entered U-value (see S1.1.2)			



# Park Homes & U-Values

Party walls	None – no party wall
Wall thickness	Measured or default from Table S3
Dry lining	Disallowed
Wall insulation	As-built Unknown Internal (U-value entry only) External (U-value entry only)
Alternative walls	No alternative wall
Floor	Ground Suspended timber only U-value entry possible.
Floor insulation	As built Unknown Retro- fitted (U-value entry only)
Glazing	Always much more than typical and measure all windows
Heating and hot water	All options as normal
Conservatory	Possible (one storey)
Open fireplaces	Always none
Ventilation	Always natural

## S1.1.1 Data for park homes

The following data items apply to a park home.

U-Values must be entered for Park Homes that have been retrofitted, if a U-Value isn't entered for a retrofitted park home, the recommendation to insulate may be suppressed, but the SAP score will remain the same.

To Enter U-Values for any property we must satisfy that convention 3.08 U-value entry (walls, roofs, floors) a U-value calculation produced or verified by a person with suitable expertise and experience.

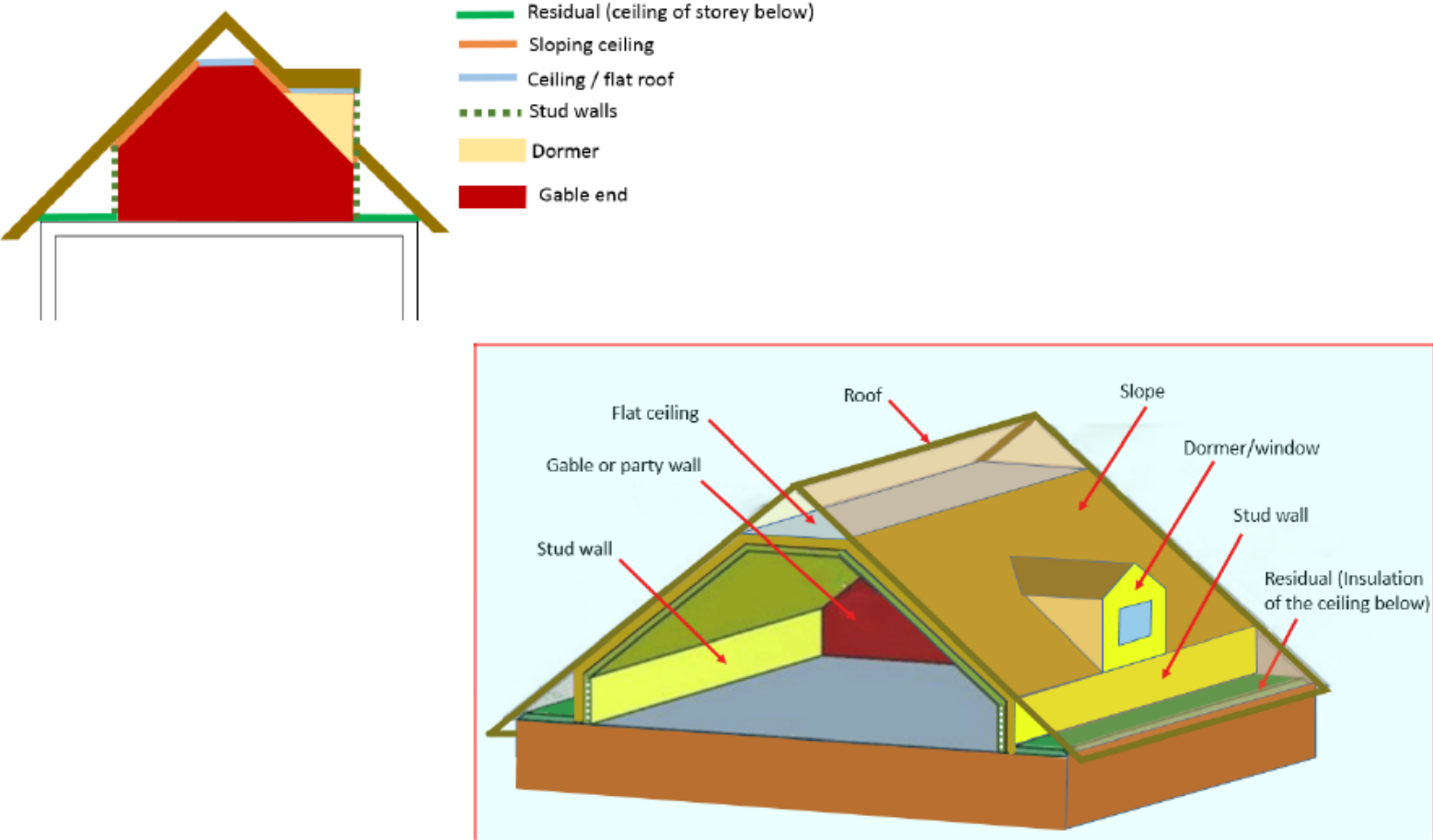
- Evidence of suitable expertise and experience can be demonstrated by, but is not limited to, membership of a recognised U-value calculation competency scheme or OCDEA1 or Level 4 non-domestic energy assessor membership, or any other process recognised by Accreditation Schemes/Approved Organisations and Government.

Also, See convention 9.02 Documentary evidence

- Acceptable documentary evidence includes, but is not limited to, official correspondence from the applicable Registered Social Landlord (RSL) or certificates, warranties or guarantees or any documents verifying that work has been carried out. The assessor must be confident, and able to demonstrate, that any documentation relates to the actual property being assessed, and/or the work has been carried out, and that there is no physical or other documentary evidence to the contrary.

# U-Values for Roof Rooms

Appendix 3. Illustration of the different parts of roof rooms when detailed measurements are made (convention 2.06)



# U-Values for Roof Rooms

## Appendix 4 of RdSAP Conventions

### Appendix 4. Rooms in Roof – U-values applicable to room in roof insulation

The values should be used only in relation to Room in Roof when the "U-value" option is chosen in the extended data entry.

Insulation thickness at joists (mm)	Slope u-value		Flat ceiling u-value		Stud wall u-value	
	Mineral wool or EPS slab	PUR or PIR	Mineral wool or EPS slab	PUR or PIR	Mineral wool or EPS slab	PUR or PIR
none	If "none", use values from SAP-2012 Appendix S, Table S10					
12	1.91	1.23	1.18	1.04	1.79	0.71
25	1.24	0.82	0.9	0.75	1.23	0.56
50	0.77	0.52	0.62	0.51	0.78	0.41
75	0.56	0.39	0.5	0.39	0.59	0.34
100	0.45	0.31	0.41	0.32	0.48	0.29
150	0.33	0.24	0.33	0.26	0.29	0.24
200	0.23	0.16	0.23	0.16	0.21	0.16
250	0.18	0.12	0.18	0.12	0.17	0.12
270	0.16	0.11	0.17	0.11	0.16	0.11
300	0.15	0.1	0.15	0.1	0.14	0.1
350	0.13	0.08	0.13	0.09	0.12	0.08
>400	0.11	0.07	0.11	0.07	0.11	0.07

#### Key:

EPS – expanded polystyrene slab  
 PUR – polyurethane rigid insulation  
 PIR – polyisocyanurate rigid foam

#### Assumptions used for calculating U-values:

Up to 150 mm, the insulation is between timber (rafters or studs)  
 Timber fraction is 12%  
 After 150mm, the next layer of insulation is continuous  
 0.04 W/mK – thermal conductivity of mineral wool slab or EPS slab  
 0.025 W/mK – thermal conductivity of PUR or PIR slab

#### Notes:

1. U-values from this table can be used for elements of rooms in roof only when the type of insulation and its thickness are known (evidence required)
2. Use the actual thickness of insulation (**do not** double insulation thickness if thermal conductivity is 0.025 W/mK)

# U-Values - Windows (U-values and g-values)

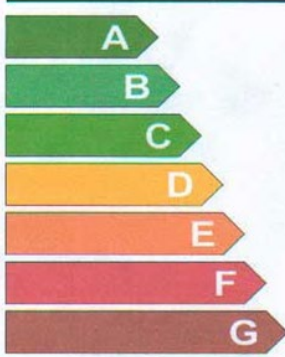

As with all other U-Value entries, window and door U-Values may only be overwritten if property-specific evidence is provided.


**Convention 3.10** - Default U-values and g-values can be overwritten and known data specified only if documentary evidence is provided, which can be either a Window Energy Rating certificate (as defined by BFRC) or manufacturer's data.

The U-value is for the whole window, not the centre pane.

### Energy Window


Topline Windows  
Duraflex 70mm PVC U Casement  
TL70 Featured C

	
Energy Index (kWh/m <sup>2</sup> /year) <small>(Energy Index certified by BFRC and based on UK standard window. The actual energy consumption for a specific application will depend on the building, the local climate and the indoor temperature)</small>	<span style="font-size: 2em; font-weight: bold;">-18</span>
The climate zone is:	<span style="font-size: 2em; font-weight: bold;">UK</span>
Thermal Transmittance (U <sub>window</sub> ) Solar Factor (g <sub>window</sub> ) Effective Air Leakage (L <sub>factor</sub> )	1.7 W/m <sup>2</sup> .K 0.44 0.00 W/m <sup>2</sup> .K


Reg. No.: 2823
M521  
[www.bfrc.org](http://www.bfrc.org)

This label is not a statutory requirement. It is a voluntary label provided as a customer service to allow consumers to make informed decisions on the energy performance of competing products.

### BFRC Energy Rating Certificate



The windows installed at  
**4 Highwood Drive,  
 Orpington, Kent  
 BR6 7BV**

Date installation completed **13/02/2013**


Are certified by the British Fenestration Rating Council (BFRC) Authorised Retailer/Installer  
**BFRC Reg No: 123456**  
**Brooked Windows and Doors Ltd and website**

To be compliant with relevant sections of the Building Regulations applicable at the date of installation.


**Window Energy Ratings**  
 BFRC is the UK premiere authority for rating the energy efficiency of windows and doors.

**Your Windows**  
 Total no. of windows installed that are BFRC rated:

BFRC Licence No./Manufacturer	Rating	Quantity
1234/XXCO	A+	8



Reg. No.: 0000 M000  
 Review Date: 01/01/10  
This label is not a statutory requirement. It is a voluntary label provided as a customer service to allow consumers to make informed decisions on the energy performance of competing products.



Keep this certificate safe!  
 Present this certificate to the EPC surveyor when you sell your home.  
 Issued by: British Fenestration Rating Council (BFRC), 54 Ayres St, London SE1 1EU  
 Tel: 020 7403 0200 Web: [www.bfrc.org](http://www.bfrc.org) Registered in England No: 05649431.  
 If the address, window count or installation date are incorrect please contact your installer directly.

# Relevant Conventions

#	Topic	Convention	Issue date
3.08	U-value entry (walls, roofs, floors)  (see also 9.02)	<p>The U-values of existing elements (walls/roofs/floors, etc.) must be the RdSAP default values (e.g. entered "as built") and must not be overwritten unless specific documentary evidence of the thermal conductivity of individual materials of the building element of the property being assessed is provided and was undertaken in accordance with BR 443 "Conventions for U-value calculations" (BRE, 2006).</p> <p>The U-value is that of the whole element, including any added insulation.</p> <p>Documentary evidence applicable to the property being assessed (see convention 9.02) must be provided and recorded if overwriting any default U-value. This evidence shall be either:</p> <ul style="list-style-type: none"> <li>- relevant building control approval, which both correctly defines the construction in question and states the calculated U-value; or</li> <li>- a U-value calculation produced or verified by a person with suitable expertise and experience.</li> </ul> <p>Evidence of suitable expertise and experience can be demonstrated by, but is not limited to, membership of a recognised U-value calculation competency scheme or OCDEA<sup>1</sup> or Level 4 non-domestic energy assessor membership, or any other process recognised by Accreditation Schemes/Approved Organisations and Government.</p> <p>Where it is known that only part of an element has been insulated use the alternative wall if possible for the insulated part, or use extensions.</p>	January 2012 amended Aug 2014 amended April 2015 amended Aug 2016 amended 31 Dec 2017*
#	Topic	Convention	Issue date
9.02	Documentary evidence Applicable to England, Wales and Northern Ireland	<p>Acceptable documentary evidence includes, but is not limited to, official correspondence from the applicable Registered Social Landlord (RSL) or certificates, warranties or guarantees or any documents verifying that work has been carried out. The assessor must be confident, and able to demonstrate, that any documentation relates to the actual property being assessed, and/or the work has been carried out, and that there is no physical or other documentary evidence to the contrary.</p> <p>Evidence of intent to install does not <b>on its own</b> qualify as acceptable documentary evidence.</p> <p>Evidence of intent to install, supported by evidence of subsequent Building Control oversight, or visual evidence that such an upgrade has been undertaken does qualify as acceptable documentary evidence.</p> <p>a) If it can be demonstrated that there was both an intention to upgrade the element (in planning documents for example) and Building Control oversight of the work, the element can be treated as having been upgraded as indicated in the planning documents.</p> <p>b) If it can only be demonstrated that <b>either</b> there was <b>an intention to upgrade</b> the element (in planning documents for example) <b>or</b> that <b>there was Building Control oversight</b> but it can <b>also</b> be seen that an upgrade has occurred, the element can be treated as upgraded using the minimum selectable upgrade of the relevant type defined in RdSAP. (If upgraded from 'as-built' to 'insulated' using the lowest selectable insulation thickness* that is better than the as-built assumption).</p> <p><i>*For roof insulation between joists use 100 mm as the lowest selectable insulation thickness.</i></p>	March 2010 amended Aug 2014 amended Aug 2016 amended 01 June 2021
	Documentary evidence Applicable to SCOTLAND ONLY	<p>Acceptable documentary evidence includes, but is not limited to, official correspondence from the applicable Registered Social Landlord (RSL) or certificates, warranties, guarantees. The assessor must be confident, and able to demonstrate, that any documentation relates to the actual property being assessed and that there is no physical evidence to the contrary.</p> <p>Evidence of intent to install does not qualify as acceptable documentary evidence.</p>	



# DEA Smart rules V1.6

DEA SMART rules V1.6  
Implementation date is from 1<sup>st</sup> November 2022  
New rules and changes are highlighted in blue

Priority No.	Rule No	Rule
1	31	Multiple lodgements on the same property by assessors from the same scheme within 12 calendar months where the SAP rating has dropped by two bands or more
2	1	No main heating system present, but mains gas supply available.
3	3	Heating controls of boiler energy manager
4	24	Overridden U-values for all building parts
5	27	Any occurrence of 2 or more EPC lodgements for the same address within a 3 calendar month period made by assessors from the same scheme.
6	30	Multiple lodgements by assessors on the same scheme on same property within 12 calendar months where SAP rating was A-D but is now E or lower.
7	29	Multiple lodgements by same assessor on same property within 12 calendar months where SAP rating was F or G but is now E or above.
8	28	Multiple lodgements on same property within 1 calendar month where SAP rating was E or lower and is now C or above by assessors from the same scheme
9	8	Mechanical ventilation present in property built prior to 2003 (including supply/extract)
10	15	Wall of any building part that has insulation type unknown
11	16	Floor of any building part that has insulation type unknown
12	25	Non-pitched roof of any building part has insulation type/thickness 'unknown'
13	26	Room in the roof of any building part that has insulation type unknown
14	22	Any floor of any building part room height is <1.5m or >4m
15	6	No heating controls present, but main heating system is a gas (incl. LPG) or oil boiler
16	2	Main building age band is L
17	21	Gas/Oil/LPG boiler main heating system and hot water from electric immersion
18	11	Age band A cavity walls

# Recap Park Homes

- Wall Depths and age accuracy (Essential)
- U-Value calculations
- Competent & qualified person
- Calculation document – addressed to the property, all (1/7) documents uploaded, name, contact details & authority to complete U-Value calculations within the document.
- Wall depths within calculation must be clear, accurate, and consistent with wall depths measured & evidenced – pre/post-install. (RdSAP, U-Value
- Glazing in park homes can't be entered as typical and must be entered Much more than typical.

If in doubt, email [support@ecmk.co.uk](mailto:support@ecmk.co.uk) with the U-Value document provided and seek guidance before lodging.



# Thank you

T: 0333 123 1418

E: [support@ecmk.co.uk](mailto:support@ecmk.co.uk)

