

Energy Company Obligation (ECO)

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ECO2 cavity wall U-value checklist

This checklist should be used in all cases where a wall U-value is overwritten for a cavity wall insulation (CWI) measure. Please note that RdSAP¹ conventions must continue to be followed when overwriting wall, roof or floor U-values.

The cavity wall U-value checklist is designed to:

- collate the information needed for CWI wall U-value calculations
- allow the relevant operative(s) to confirm that the data provided is accurate to the best of their knowledge
- allow the relevant operative to confirm that the requirements described in RdSAP 2012 (9.92) have been met.

1 Policy

1.1 Following our ECO2 consultation on requirements for overwriting U-values for CWI measures,² we have introduced thresholds for starting U-values per age band. These can be found in the table below.

Age band (England and Wales)	Default U-value	Threshold	Age band (Scotland)	Default U-value	Threshold
A (before 1900)	2.1	2.1	A (before 1919)	2.1	2.1
B (1900-1929)	1.6	1.6	B (1919-1929)	1.6	1.6
C (1930-1949)	1.6	1.6	C (1930-1949)	1.6	1.6
D (1950-1966)	1.6	1.6	D (1950-1964)	1.6	1.6
E (1967-1975)	1.6	1.6	E (1965-1975)	1.6	1.6
F (1976-1982)	1.0	1.5	F (1976-1983)	1.0	1.5
G (1983-1990)	0.6	1.05	G (1984-1991)	0.6	1.05
H (1991-1995)	0.6	1.05	H (1992-1998)	0.45	0.8
I (1996-2002)	0.45	0.8	I (1999-2002)	0.45	0.8
J (2003-2006)	0.35	0.6	J (2003-2007)	0.3	0.55
K (2007 onwards)	0.3	0.55	K (2008 onwards)	0.25	0.45

1.2 Where the U-value is below the threshold for the relevant age band, we require the checklist to be completed and signed by a person with suitable expertise and experience. Where the calculated U-value exceeds the relevant threshold, we still expect the checklist to be completed. However, in order to justify a U-value higher than the threshold we expect one of the following:

1. The calculation to be produced or verified by a person with suitable expertise and experience³ using inputs based on:
 - a) construction details and specifications (as produced by the building's design or construction team) that fully describe the existing wall construction, or
 - b) a core sample tested in a laboratory, to determine the thermal properties of its construction materials.

¹ <https://www.bre.co.uk/filelibrary/SAP/2012/RdSAP-Conventions.pdf>

² https://www.ofgem.gov.uk/system/files/docs/2016/02/eco2_requirements_for_overwriting_u-values_consultation_0.pdf

³ As defined in RdSAP convention 3.08: <https://www.bre.co.uk/filelibrary/SAP/2012/RdSAP-Conventions.pdf>

OR

2. The calculation to be produced or verified by one of the following persons with suitable expertise and experience⁴:
 - a) a member of a recognised U-value calculation competency scheme (e.g. BBA/TIMSA), or
 - b) any other process formally recognised by Accreditation Schemes/Approved Organisations and Government. *This evidence will need to be agreed with Ofgem prior to notification.*

OR

3. Relevant building control approval, which both correctly defines the construction in question and states the calculated U-value.

2 Completing the checklist

- 2.1 The information in this checklist provides assurance that overwritten U-values for CWI measures are reasonable and in line with RdSAP conventions.
- 2.2 In completing the checklist, you should ensure that you (the relevant operative):
 - are appropriately qualified to conduct an intrusive inspection to collect some of the inputs for the calculation (section 1)
 - are a person with suitable expertise and experience to calculate or verify a U-value (section 2)
 - complete all relevant sections (note that some calculation tools do not allow inputs for all wall elements listed in the table below, in these instances enter N/A)
 - record your justification for selecting one input over another (eg knock test) and attach any supporting evidence and the calculation
 - Where the calculated U-value exceeds the relevant threshold, state which form of additional evidence (listed in 1.2) has been used- in the '**Supporting evidence available/justification for lambda or k value selected**' column.
 - complete an additional checklist where the walls in a premises vary and specify which wall each checklist relates to and how many checklists have been completed for each premises
 - where multiple premises of a similar type and construction are covered by this checklist attach an appendix detailing each address covered
 - where applicable, justify the reason for not overwriting the default finish value where a start default U-value has been overwritten
 - Sign and date the checklist, including in section 2 details of your accreditation body
- 2.3 Please note that where photographs are used as supporting evidence they must be captured using a suitably high resolution, record the date on which the photo was taken. Where possible we expect all photographic evidence to be GPS location-stamped.
- 2.4 Suppliers must be able to provide a copy of a completed checklist and the associated evidence to us on request.

3 Operative competency

- 3.1 **Section 1** of this declaration should be completed by a suitably qualified person who is collecting the inputs for the U-value calculation on site. In order to verify that there is no insulation present and the width of the cavity this person should carry out an intrusive inspection.
- 3.2 **Section 2** of this document should be completed by a person with suitable expertise and experience⁵.

4 Accuracy of the checklist

- 4.1 It is important to note that the information recorded in the checklist, and the supporting evidence, may be subject to audit or further checks by Ofgem. If we consider that an assessment has been incorrectly carried out, the relevant measure may be re-scored. For this reason, suppliers should ensure that the checklist is completed accurately by the relevant operative(s). **If there is uncertainty about the inputs, the U-value should not be overwritten and the RdSAP defaults should be used.**

5 Format of the checklist

- 5.1 Suppliers may adapt the format of the checklist to match their own systems as long as the content is not changed. Suppliers should submit adapted checklists to us before use for confirmation that the content is acceptable.

⁴ This does not include OCDEA or NDEA (England & Wales) Level 4 membership or/New Build Scotland NDEA.

⁵ As defined in RdSAP convention 3.08: <https://www.bre.co.uk/filelibrary/SAP/2012/RdSAP-Conventions.pdf>

ECO2 Cavity Wall U-Value Checklist

Installer name:	
Address of premises (if multiple, please attach appendix of all addresses covered):	
RdSAP age band eg H or 1991-1995:	
State number of checklists completed for the premises and which wall(s) this checklist relates to eg front elevation or whole premises	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> Checklist ___ of ___. </div>

Section 1: To be completed by person selecting inputs for the U-value calculation

Justification (why does the U-value need to be overwritten? Eg RdSAP assumes insulation present when there is not):				
Wall Element (if any of these elements are not present at a premises please record N/A)	Description of element eg lightweight concrete block	Thickness (mm)	Lambda value selected and source eg CIBSE guide A	Supporting evidence available/justification for lambda or k value selected eg photographs, knock test, explanation of choice or if U-value is above the relevant threshold, one of the options listed in paragraph 1.2.
External Applied Finish:				
Outer Leaf:				
Cavity:				
Insulation (if present):				
Wall Ties:				
Inner Leaf:				
Internal Applied Finish:				
Other (where applicable):				

Declaration

I confirm I have conducted an intrusive inspection and that to the best of my knowledge the information listed above is accurate and representative of the premises specified in this checklist.

Name:	
Company name:	
Signature	
Date:	

Section 2: To be completed by a person with suitable expertise and experience (as defined in convention 3.08 of RdSAP) calculating or verifying the U-value

Starting U-Value		Finish U-Value (where the start default U-value is amended we would expect the finish default U-value would be - where this is not the case please complete justification box)		
Default (RdSAP)	Amended	Default (RdSAP)	Amended	Justification

Declaration

As the person with suitable expertise and experience calculating or verifying for the measure detailed above, I can confirm that:

- I have followed the requirements described in SAP 2012 version 9.92 (Appendix S)
- I have calculated the U-value(s) in accordance with industry standards, and
- the U-value/(s) I have calculated/verified in the table above apply to the premises, and where relevant, the wall(s) specified at the top of this checklist.

Suitably qualified person's name:		Company name:	
Signature:		Accreditation body:	
Date:		Membership number:	