

Basic U-value calculations using ECWINS Software

From 1 October 2010, window manufacturers in England and Wales will need to be able to demonstrate that their windows comply with the energy efficiency requirements in the latest 2010 revision of Part L of the Building Regulations and the Approved Documents L1A (new dwellings) and L1B (existing dwellings). This is usually done by declaring the windows' U-value. In a change from the previous regulations, it is now only possible to comply with the Regulations by declaring the centre pane U-value in certain specific and limited situations. For the most part, the U-value must relate to the window as manufactured.

Obtaining a precise U-value for a manufactured window can be prohibitively expensive for smaller manufacturers. The BWF is able to offer this service to its members to provide a basic U-value calculation to enable them to obtain the figure they need to comply with Building Regulations at a reasonable cost.

Furthermore, architects and specifiers are asking increasingly for the thermal transmittance values of windows, so that they can calculate the SAP ratings of the buildings into which the windows are to be fitted. If you cannot provide U-values, then they may opt to use the windows of a competitor who does have the information to hand.

What will I get from BWF?

We are able to carry out a basic U-value calculation based on Part 1 of standard "BS EN ISO 10077 Thermal performance of windows, doors and shutters. Calculation of thermal transmittance. General" using the ECWINS software tool, which is only available through the BWF and only to BWF members.

You submit the relevant data for the window to us. We will then calculate the U-value using the ECWINS software, and issue you with a certificate in accordance with that standard, which can be used as formal support when you supply U-value information to potential customers or Building Control Bodies (BCB).

Whether or not the window itself complies with the requirements of Building Regulations depends on the U-value it actually achieves. A guide on how to comply with the requirements of Part L (2010) is available in the Technical Publication sections of the BWF website. The BWF technical team can also advise you.

A U-value calculated by this method will be sufficient to satisfy the requirements of Building Regulations, but is not as precise as a full U-value simulation. It cannot be used as the basis for obtaining a full BFRC Window Energy Rating (WER), nor could it be submitted as if it were a WER. A U-value for an energy rating needs to be simulated to Part 2 of *BS EN ISO 10077*. The BWF offers other Total Support Service packages which can help you obtain full U-value simulations or Window Energy Ratings.

For all windows for which we have calculated the U-Value, we will register the window design with us if you wish to provide U-values to clients in the future. This is particularly useful if you later want to change the design or specification, for example, the timber species, section size, glazing unit or other data and require a new calculation to be performed. We will maintain the database of windows registered with us, and make it available to FENSA and other inspection bodies.

What is involved?

You submit the relevant data for the BR 443 model window in question to us on the appropriate data sheet and a certificate issued to reflect this data.

Both casement and sliding sash windows will be modelled on the BR 443 standard design. In the case of dwellings, the BR 443 model window will represent all the windows using a standard window 1.48 m high by 1.23 m wide, with a central vertical divider, and one opening light and one fixed, or directly glazed, light.

We will calculate the U-value. We then send you a certificate for that window and you can use that certificate to demonstrate compliance with Building Regulations depending on the U-values obtained.

Costs

This service is available to BWF Members only. All prices are subject to VAT at the current rate.

One window

£ 95

The BWF must receive full payment in advance. You will receive a VAT receipted invoice with your certificate.

How to Apply

Login to BWF website at www.bwf.org.uk/ecwins (you can copy and paste this link into your web browser) and complete the Single Casement; *or* BR443 Model Casement Window *or* Vertical Sliding Sash either Spiral Balance *or* with Weights and Pulleys; Application & Data Sheet and return with full payment.

Please ensure you provide all the relevant data requested, details of a technical contact within your company, read the terms & conditions, and sign the declaration.

Calculations will only be produced once payment has been received in full.

The BWF also offers a service to help you achieve BFRC Window Energy Ratings. For costs and information on achieving WER, please refer to separate Total Support Services Sheet.

Terms & Conditions

1. The price quoted in this information sheet for this service is valid until further notice. We reserve the right to alter the price in the future.
2. The price and service offer assumes that the applicant company will provide the necessary information and does the background work as instructed by the British Woodworking Federation (BWF).

Terms of Reference

3. The quoted services will be managed and conducted by the BWF.
4. All work will be undertaken as defined and agreed jointly by the applicant company and the BWF.

Invoices

5. Prices shown are in Pounds Sterling.
6. Prices shown are exclusive of VAT. VAT will be charged at the prevailing UK rate unless the client is also registered for VAT in his/her home country, when EU rules will apply.
7. The service must be paid for in advance of the service commencing. The BWF will issue paid receipt invoices on completion of the service.

Contractual Agreement

In applying, the applicant company agrees that:

8. Should it at any stage of the process decide to postpone, suspend or terminate the application, it will be liable for the cost to cover any work carried out to date which had not been previously invoiced, expenses incurred and cancellation costs of any booked services.
9. Any work undertaken on its behalf will be treated confidentially, except where information is available in the public domain. It authorises the BWF and its service managers to release any information necessary to the service providers to achieve the service requested.
10. The work undertaken includes, but is limited to, the items specified in the scope of work attached to this information document.
11. The BWF, its service managers and service providers cannot be held responsible for the results of the services undertaken and cannot guarantee any specific results.
12. The BWF and its service providers will use its best endeavours to comply with any time or date specified for the completion of the project; any time or date specified is estimated and not guaranteed. Any delays in completion of the project shall not entitle the client to rescind the contract.
13. Neither the BWF nor its service providers shall be liable for damage or loss of whatever nature arising from the work done by them whether due to negligence or any other cause whatsoever, neither shall it or any of its servants or agents be liable for damage or loss of whatever nature in respect of indemnity claims by other parties arising from any delay, defect or error in any work undertaken by it, its servants or agents save to the extent that any attempted exclusion of liability would be contrary to the law of the United Kingdom.
14. The law that applies to these terms and conditions is the law of England and Wales.