



Comments on draft Task 7 of the preparatory study for windows - Lot 32

March 2015

We welcome the opportunity to comment draft Task 7 and have put forward our views below. Windows present a high level of complexity, due to the numerous factors impacting their performance. It is one of the first energy-related product group to be discussed, which obviously requires new thinking and innovative approaches to tackle meaningfully their environmental impact.

Regarding Ecodesign requirements

We take note of the justifications given by the study team not to recommend setting any Ecodesign energy efficiency requirements on windows but would like to remind a few facts that go beyond the theoretical implementation of the EPBD by Member States. There is no absolute enforcement of the cost-optimal methodology, as cost optimal methodologies are loosely defined and Member States can develop their own methodologies to estimate cost-optimality levels. The issue, therefore, may be that some Member States have very watered down requirements due to the methodology developed. Moreover, most of the countries set requirements based solely on the U_w -values, as stated several times in the report. A European Ecodesign requirement on the overall performance could then trigger more energy savings than the ones achieved through the EPBD. The study explains that the EPBD minimizes “*the possible additional savings to be achieved by Ecodesign requirements*”. We wonder if this assessment is based on the optimal or actual implementation of the EPBD by Member States.

→ We invite the study team to make recommendations on how these legislative shortcomings should be tackled.

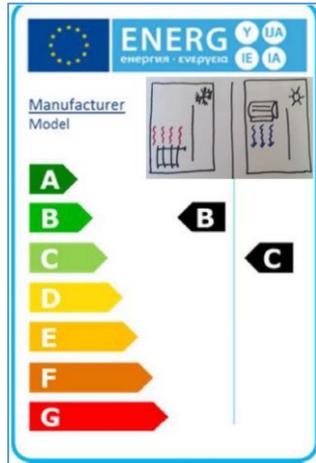
Regarding the Energy Label

We welcome the recommendation to set an Energy Label on windows and the recognition of a clear need for customers, installers, and building advisers to be guided in their purchasing decision.

Layout

We have concerns regarding the current layout proposals and how they would be understood throughout Europe.

We recommend to re-work the icons used to represent the heating and cooling performances. The below proposal using the symbols of a heater and an air conditioner should be assessed:



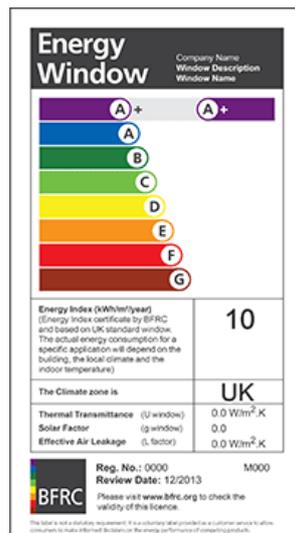
If climate conditions are to be represented in the label, we consider that a map with climatic zones would be easier to understand, like in the case of the labels established for heaters and air conditioners. We therefore invite the study team to propose an option with a map.

➔ Review the label proposals to make them easier to understand.

Information

“The conclusion is that Energy Labelling may be applied to window (label and fiche) but must be limited to information relevant for resource consumption in the use phase only.” (Page 24)

We strongly disagree with this statement and think that both the label and fiche should contain information on functionality which is common practice, as well as information on other environmental aspects that are relevant for the user. On the option of including the U_w -value, the g -value and the air leakage in the label, the study team explains that this information would be too technical for laypersons. We disagree with this approach as more knowledgeable consumers, installers and retailers (cf page 101) could benefit from this information. The UK label which is well-arranged and understandable could be used as an example on this aspect:



Furthermore, we invite the study team to also consider adding the acoustic performance, as well as the light transmittance of the glazing on the label.

Finally, throughout the report, orientation has shown to be an important factor for heating and cooling performances. Since it seems difficult to have it represented on the label, we invite the study team to suggest a way of expressing its impact in an understandable way in the product fiche.

→ Use the label as an opportunity to give information on the functionality of windows, thanks to information such as the U_w and g-values, air leakage, acoustic performance and light transmittance.
→ Suggest a way of expressing in an understandable way, the impact of orientation on cooling and heating performances in the product fiche.

Presence of hazardous substances

The study concludes that *“specific requirements regarding presence (or use) of harmful substances are not needed as most harmful substances have already been phased out, or subject to ongoing phase-out initiatives, most often triggered by the REACH Regulation.”*

This is highly questionable as certain hazardous contents such as phthalates (including DEHP) have been authorized to promote the recycling of PVC. However, to encourage the move to a sustainable, circular economy, these substances should be clearly identified and products containing them differentiated. We urge the study team to make a proposal so that the presence of hazardous substances is disclosed, thanks to a special marking on the concerned frames. If this information cannot be included on the label, the use of QR codes may be envisaged.

→ Make a proposal so that the presence of hazardous substances is disclosed.

Windows' dimensions

The following assumption is made in the report (page 101):

“The measurement of the main parameters (U_w , g-value, leakage, etc.) for establishing either the heating and/or the cooling performance shall take into account the following considerations:

- 1. The U_w value, g-value, air leakage, g_t , frame fraction FF shall be established in accordance with hEN 14351-1. The study writers recommend that all these parameters apply to a window of standard external dimensions (1.23*1.48m) so that performances of windows are comparable as they are similar sized. Taking the outer dimensions also means that the frame fraction FF will affect the performance of the window (lower frame fraction means more transparent area and more losses and gains determined by glazing properties).”*

However, we consider that it is important to take into account the real measures of windows in order to obtain a reliable and detailed calculation of the U_w -value. Standard windows are often assessed to have a 25-30% frame fraction (FF), whereas many buildings in reality have a 40% frame fraction especially in the case of retrofit. Having an averaged, approximate Frame Fraction value leads to better U_w -values than reality since in general, for heating purposes, glass is better than the frame of a window. This should be avoided.

The following examples indicate why this point is important:

- There is a trend to construct buildings with very broad, low windows (i.e. 1.6 x 0.5m). These windows have very bad energy properties as no sunlight comes in. The effective U_w -value is therefore usually very poor (FF \geq 50%) compared to the standard window.
- Having an old, listed building with many Georgian bars may have a huge impact on the length of the spacer and the relation of glass to frame (FF \geq 50%).

→ Propose alternatives to avoid the uncertainties created by the use of a single standard size for windows.

Label classes

As a general remark, we would like to reiterate that for the label to drive innovation and enable market differentiation, top classes should be kept unpopulated when defining the classes. It is again confirmed on page 87 of Task 1 as the UK and Finland had to introduce additional top classes only a few years after the entry into force of their windows labels.

Having an energy label on windows should clearly indicate that single glazing only makes sense in a few limited cases, e.g. when a building is not heated. We would like the study team to make sure that the performance of single glazing is not overestimated in the label, leading the consumers to a wrong choice.

→ Label classes should be defined such as the top classes remain unpopulated and the performance of single glazing is not overestimated.

Label design IV

An additional label design IV should be proposed which would target installers and allow for a customization according to key properties of the windows such as its orientation, climate zone and size. We consider that this option cannot be ruled out at this stage.

→ Propose and discuss a label design IV which would target installers and be customized according to some key properties of the windows such as orientation, climate zone and size.

Windows in non-residential buildings

It is stated that the proposed Energy Label should apply to the residential sector only; however, section 4.2.1 (definition) does not state how residential windows should be distinguished from windows for the non-residential sector. The study team even concludes on page 97:

“At the moment the window is placed on the market (either sold to end user by window retailer/installer, or completed at building site as commissioned by building developer) it is not always known whether the window is installed in a residential or non-residential building. In case the window is labelled prior to moment of sales, it may mean the windows for non-residential applications are equipped with a label primarily intended for the residential market.”

We wonder if this would mean taking the risk of creating a loophole as non-residential window could be used in a residential situation.

Moreover, we would like to question the exclusion of windows intended for non-residential buildings (NRB) from the scope: *“Stakeholders have argued that energy labelling for windows intended for the non-residential sector makes much less sense as: 1) window selection is much more often performed by building specialists who can make their own assessment on the basis of the basic window properties (CE marking data), 2) due to the larger variations in boundary conditions, there is a greater risk that the label information will not be applicable to the specific situation.*

Point 1 should be amended as in many cases, the main driver in the purchasing decision is the price. As stated on page 8 of Task 7 and applying to both the residential and non-residential buildings, *“even architects or professional building advisors may lack the skills for optimal window selection”*. We therefore believe that a label on windows intended for NRB would also bring transparency to the

process and could guide all actors towards better products. Regarding point 2, we would like to point out that if a commercial building has a good window/wall proportion like in most residential buildings, its energy consumption is much lower. This could become a way of addressing the current trend for commercial buildings with a huge share of windows, which are very energy-consuming. Should this proposal not be taken on board, these remarks should at least be included in the report.

→ Consider integrating windows intended for non-residential buildings taking into account the loophole that could be created otherwise.

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