

EBC position on the proposal for a European energy labelling for windows

About EBC

Established in 1990, the European Builders Confederation - EBC - is a European professional organisation representing national associations of micro, small and medium-sized enterprises working in the construction sector. Through its national members, EBC represents 2 million construction microenterprises and SMEs.

The construction sector is of vital importance to the European economy. With 3 million enterprises, an annual turnover of around € 1600 billion and a total direct workforce of 13 million, the construction sector contributes at around 10% to the GDP of the European Union.

99.9% of the European construction sector is composed of small and medium-sized companies, which produce 80% of the construction industry's output. Small enterprises (less than 50 employees) are responsible for 60% of the production and employ 70% of the sector's working population.

General comments

EBC acknowledges that the current information reported on CE marking on window products is not easily understandable for consumers. EBC also agrees that a better communication with consumers is needed and that an energy labelling for windows is a good way to convey information.

However, for EBC to support any European energy labelling for windows, the scheme must meet certain conditions of fundamental importance to construction crafts and SMEs:

1. **No additional testing** shall be required
2. The **thresholds of the classes should better reflect the current national markets**. Under the current rating, a good window in certain Member State would be rated F. It will be very difficult to explain to a consumer that a good window is rated F. This would be a bad signal sent to the market and this could actually slow down the process of window replacement
3. A closer consideration should be given to elements with a very high performance in terms of "price vs energy savings". Indeed it is of high importance to know what a very high window brings in terms of costs and energy savings. The current proposal does not take into account **cost-optimality**, an important provision introduced by the recast EPBD.
4. The current **calculation methodology** for the definition of classes should be better explained
5. **A & B classes should not be left blank** to leave room for technological improvement. The thresholds of the classes should change in the future based on the technological improvements
6. **The EU map of location of reference conditions should be revised** to correspond to the real climatic zones. The label should be flexible enough to take into account specific local conditions
7. **Foresee support & accompanying measures for small companies** for the transition phase

Specific comments and recommendations

Consultation 1. "Technical scope"

Regarding the scope of the EU energy label for windows, which alternative is preferred?:

1. the scope is all windows within the scope of standard EN 14351-1
2. **the scope is all windows within the scope of standard EN 14351-1, with the exception of roof windows**

2) the scope is all windows within the scope of standard EN 14351-1, with the exception of roof windows;

EBC believes that roof windows should be excluded from the scope. First of all, roof windows contribute only in a small degree to the overall buildings energy savings. Moreover for roof windows, solar heating is a decisive factor. As a consequence, roof windows can lead to very important energy savings in heating conditions but to an important risk of overheating in cooling period. So a specific energy label should be defined for roof windows to take in account these aspects.

Consultation 2. "Application scope"

Regarding the scope of application, which alternative is preferred?:

1. **the application scope should be limited to the residential sector only**
2. the application scope should not be limited, thus covering non-residential applications as well¹

1) the application scope should be limited to the residential sector only;

EBC believes it is better to first try the energy labelling in the residential sector. Eventually, if the label appears to be successful, the energy labelling could be extended to other sectors where the variety of buildings is much bigger than in the residential one. Moreover, the energy labelling is meant for a B to C relationship, in a B to B relationship, the CE marking is sufficient.

Consultation 3.

Which alternative is preferred: heating and cooling performance shown separately or combined?

1. **heating and cooling performance should be shown separately;**
2. heating and cooling performance should be combined into a single value.

1) heating and cooling performance should be shown separately;

A combined performance simplifies the energy label but it can mislead the consumer in choosing the right window. Windows play a different role depending on the weather conditions – maximizing solar gains and insulation in the heating season and minimizing solar gains in the cooling season. Showing heating and cooling performance separately would raise the awareness of consumers on the

¹ This requires formulation of additional parameters (requires further study) and possibly 'double labelling' of windows (as it is not always known beforehand in which application the window will be used).

performances of the window for each of the situation, hence preventing the risk of overheating in the future. Such risk is not limited to southern European countries but is also common in Northern ones.

Consultation 4.

In case the energy performance is expressed as a 'bare' window, the performance of the window with adaptive elements activated, should be shown (if appropriate).

1. **yes, add the performance of the adaptive window;**
2. no need for the performance of the adaptive window.

1) yes, add the performance of the adaptive window;

EBC believes it is important to add the performance of the adaptive window but only for a frame assembly comprising a roller shutter box.

Consultation 5.

In case the energy performance is expressed as a combined value, a 'summer comfort' indicator should be added.

1. yes, add a summer comfort indicator.
 - a. based on g_w (no adaptive elements considered, just g of glazing and frame fraction);
 - b. based on $g_{w,eff}$ (adaptive elements is considered, need to define Z value);
 - c. based on kWh/(m².yr), for South climate only, without adaptive elements;
 - d. based on kWh/(m².yr), for South climate only, with adaptive elements;
2. no need for a summer comfort indicator.

See answer to consultation 3. EBC believes heating and cooling performance should be shown separately on the energy label.

Consultation 6.

In case the energy performance is expressed as a combined value, a 'winter comfort' indicator should be added.

1. yes, add a winter comfort indicator (based on heating performance in kWh/(m².yr)).
2. no need for a winter comfort indicator.

See answer to consultation 3. EBC believes heating and cooling performance should be shown separately on the energy label.

Consultation 7.

The following additional performance parameters should be included in the EU energy label in the following way.

1. Thermal transmittance (U_w of window, in W/(m².K))
 - a. yes, mandatory
 - b. optional

- c. do not include on label.
2. Solar heat gain coefficient (g value of window, dimensionless) for static window without adaptive elements:
 - a. yes, mandatory
 - b. optional
 - c. do not include on label.
3. Solar heat gain coefficient ($g_{w,eff}$ value of window, dimensionless) for window with adaptive elements activated:
 - a. yes, mandatory
 - b. optional
 - c. do not include on label.
4. Sound insulation (dB):
 - a. yes, mandatory
 - b. optional
 - c. do not include on label.
5. Daylight potential (dimensionless):
 - a. yes, mandatory
 - b. optional
 - c. do not include on label.

EBC believes that only those energy related window performance parameters should be included in the EU energy label. The other parameters should be mentioned and included in the CE marking and the Declaration of Performance (DoP) according to the regulation 305/2011.

Consultation 8.

An EU map should /should not be shown on the EU Energy Label for Windows:

1. yes, show an EU map indicating reference zones (two maps for 'separate heating/cooling' or single map if 'combined performance').
2. yes, a map should be shown, but different to the ones presented in this Working Document
3. **do not show an EU map at all.**

3) do not show an EU map at all;

EBC believes the proposed map is only representative of a “generic label” and does not give consumers correct information based on an energy performance assessment. The map will not help consumers choose the best window in relation to installation conditions.

Window performances depend a lot on external conditions (temperature for the heating performance, solar radiation for the cooling performance) therefore, proposing only 3 benchmark calculations

cannot be considered sufficient to represent the variety of climate conditions in the 28 EU Member States. In some countries national regulations consider more than 10 climatic zones.

As a consequence EBC believes it is better not to include the map. It would be better to develop a web-based software that allow to choose the right climatic data for heating and cooling, based on the identification of the location where windows will be installed.

Consultation 9.

The Commission Services should develop a (web-based) tool to generate 'installer labels':

1. **yes, develop this tool;**
2. no, don't develop this tool.

1) Yes, develop this tool;

EBC is in favour of such a tool as it could help market actors. However the methodology should be revised.