

PAPER TITLE

Air tightness of buildings in Poland

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ABSTRACT

This paper presents a general overview of the building envelope airtightness requirements in Poland. The Energy Performance of Buildings Directive (EPBD) established the first regulations in Polish law, regarding airtightness of buildings (Building Codes 2008). Unfortunately, these provisions are currently not precise enough and not sufficiently developed to implement effectively appropriate testing procedures and ensure high airtightness. Other requirements such as passive house guidelines are applied in Poland very seldom and only by very conscious investors.

A step in a good direction was performed recently by National Fund for Environmental Protection and Water Management (NFEPWM). The Fund set up requirements for new low energy buildings and among them also obligatory testing of building airtightness. Fulfillment of all these demands in case of residential houses results in getting subsidy which is a good stimulus to care about the building quality.

Unfortunately at the moment we have no requirements imposed for measurement companies - their competencies, experience, references, equipment and certification.

Generally, the situation in the field of airtightness on the Polish construction market looks like at the very beginning of the whole long quality-improvement process. In the paper, there is presented brief characteristics of the market like e.g. problems in investor's and contractor's budget planning, lack of awareness, knowledge and experience. Public procurement law also doesn't help in this issue – the most popular tender criteria is the lowest price. This obviously results in deficiencies in the bids and finally in poor quality of workmanship.

The European norm PN-EN 13829 is actually the only guideline and source of knowledge relating to air leakage tests. Performing measurements strictly according to this norm in large buildings causes some doubts and difficulties in practice like for example possibility of ventilation system use, its accuracy, building preparation procedures.

There are several representative for polish residential and non-residential buildings measurements, obtained results and comments presented in this paper. These airtightness measurements of realized buildings show what can be achieved in practice of our country. With NFEPWM grants program it is going to be a strong progress in the field of airtightness techniques and measurements next years.