BlowerDoor Test in the First Passive House in China

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Experience gained from the “Hamburg House” building project in Shanghai
Focus: Applied knowledge, presentation

Objective
Considerations for building commissions far from home

Methodology
Conducting a pressure differential measurement in China, thus far from home.

Presentation content
The actual question is as follows: “Is the building envelope of the first passive house in China sufficiently airtight?” To determine air-tightness in China, a pressure differential test was to be conducted. First, a number of questions had to be answered. What building system is used and which materials are implemented? Who will conduct the measurement, according to which standard will it be conducted, and how will the measuring equipment be transported to the site? What are the customs regulations to be observed and what kind of problems could the authorities in the area pose? How will communication with the workers as well as their supervisors be established? Who is the client, who will pay the bill, and in which currency – EURO or RMB? What pitfalls are there, what must be avoided at all costs, what should not be forgotten, what needs to be considered – how does one prepare? What differences are there compared to German building sites? In my presentation, I will give the symposium’s participants an impression of how this task was managed, illustrated by pictures and short film clips. I have already given a short version of this presentation at FLiB’s general meeting.

Results
It is possible to build passive houses in China. The Chinese are able to build a sufficiently airtight building envelope. However, constant quality control throughout the entire building process is an absolute prerequisite.

Conclusions
There are many obstacles on the road to a building envelope suitable for a passive house. These must be identified and recognized. If this is accomplished, passive houses can also be built in Asia.