Energy research for practical applications

Pressinformation



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Passive house indoor pool saves heat and electricity

Monitoring results now available

Many cities and municipalities operate indoor pools in antiquated buildings and with inefficient technology. This puts a burden on operating costs, and swimming pools are facing scrutiny in many places. Innovative building concepts are needed to ensure continued year-round swimming, lessons and enjoyment for families. BINE Projektinfo brochure 'Fun in a passive house pool' (08/2016) introduces a leisure pool in Bamberg. The swimming pool was scientifically accompanied and optimised in the first three years.

As a passive house, the leisure pool has a particularly high-quality and tight building envelope. Thanks to the window systems, indoor humidity can rise up to 64 % without any condensation. The pools reach into the insulated cellar area, and heat is supplied by a wood gasification CHP and three gas condensing boilers. For the ventilation concept, the interior rooms were zoned for control purposes. The need-based air exchange rates in the individual zones are guaranteed by eleven ventilation systems with heat recovery. In the course of monitoring, the power consumption of the ventilation system was reduced by 60 % as a result of optimisation measures. The swimming pool in Bamberg consumes about 50 % less heat energy and 20 % less electricity than comparable pools.

The building owners of the leisure pool are Stadtwerke Bamberg, and the scientific monitoring was supervised by the Passive House Institute. The Passive House Institute also scientifically accompanied the first years of the passive house sports pool in Lünen that was built at the same time. The results of both projects will be summarised in a guide for passive house swimming pools in 2018.

The BINE Projektinfo brochure, which can be obtained free of charge from the BINE Information Service at FIZ Karlsruhe, is available online at www.bine.info or by calling +49 (0)228 92379-0. The brochure cover and additional images can also be downloaded from this web portal in the press section.

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