

Press Release

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Premiere in South Korea: The Nowon EZ House in Seoul is the first certified Passive House apartment building in South Korea. It will be open to the public during the International Passive House Open Days (Passive House database ID 5817). More information can be found at www.passivehouse-database.org © Passive House Institute

Welcome to Passive House!

Passive House residents open their buildings from 9th to 11th November

Darmstadt, Germany. Simply walking into other people's homes? That is exactly what everyone can do during the International Passive House Open Days. Residents of Passive House buildings will open their doors to visitors during this annual open days event. They invite them to experience the high levels of comfort and energy efficiency for themselves. Welcome to Passive House! This year the International Passive House Open Days will take place from 9th to 11th November.

With a Passive House, building owners are implementing the energy transition within their own four walls. The investment costs required for the construction of a Passive House building are scarcely higher than those of a conventional building. At the same time, residents need very little energy for heating or cooling and therefore only pay a fraction of the normal heating or cooling costs. In addition, Passive House buildings can also be successfully combined with



This Passive House in Rochester, New York can be visited during the International Passive House Days, Passive House database ID 5575. © Matthew Bowers

renewable energy generation.

Climate protection

"The recent IPCC Report from the United Nations has again demonstrated that climate protection must be consistently implemented without any further delay. As a major contributing cause of global warming, buildings must also become much more energy efficient. For over 27 years, Passive House buildings have shown that it is possible to drastically reduce the energy consumption of buildings", explains Dr. Witta Ebel of the Passive House Institute.

Constant supply of fresh air

Passive House buildings are characterised by excellent thermal insulation, triple glazed windows, and a ventilation system with heat recovery among other things. Thanks to the ventilation system, the air quality is noticeably better than in conventional buildings - allergy sufferers can breathe freely again. Other criteria for the Passive House Standard include an airtight building envelope and the avoidance of thermal bridges.

All sorts of buildings

An overview of buildings participating in the International Passive House Open Days can be found at <u>www.passivehouse-database.org</u>. Over the three days, building owners will be inviting people into their Passive Houses. A large proportion of the participating buildings are residential, including Passive House Plus and Premium buildings which produce renewable energy on-site. However, the owners of offices, hotels, church institutions, schools and kindergartens will also be inviting people to visit their Passive House buildings.

Building for the foreseeable future

In the European Union the revised version of the Energy Performance of Buildings Directive (EPBD) stipulates that from 2019 all public buildings, and from 2021 all private buildings must be nearly zero-energy buildings (NZEB). The Passive House Standard already fulfils the criteria for these low energy requirements today. "During the International Passive House Open Days, visitors will be able to have their questions answered directly. This is a unique chance to obtain an authentic impression of these comfortable and extremely energy efficient buildings", explains Sabine Stillfried of the IG Passivhaus Germany.



This 1930s building on a housing estate in Mönchengladbach, Germany, was retrofitted to the Passive House Standard. The garden façade has been transformed beyond recognition, Passive House database ID 5765. © bau grün! architekten

Transformation of a house

An apartment building in Mönchengladbach, Germany, modernised by the architectural firm bau grün! can also be visited during the International Passive House Open Days. The 1930s building is one of twelve housing estate buildings in the Westend district. The garden façade with the enlarged windows and the new timber construction annexe with bay windows has been transformed beyond recognition. "During the Open Days we want to show the visitors how an old building can become appealing both in terms of energy efficiency and visuals", says the architect Daniel Finocchiarro of Mönchengladbach. Information regarding viewing can be found on www.passivehouse-database.org under ID 5765.



This Passive House in Christchurch, New Zealand is one of several buildings which can be viewed in the southern hemisphere, ID 5225. © Passive House Institute New Zealand

Viewing is easy

Participating in the International Passive House Open Days is simple: on <u>www.passivehouse-database.org</u> interested persons can search for open buildings in their city or region. Most buildings can be visited without advance notice, in some cases a short notification or

appointment is required. The International Passive House Open Days are organised by the IG Passivhaus Deutschland in cooperation with Passivhaus Austria and the International Passive House Association (iPHA). This year the worldwide event is taking place for the 15th time.

Passive House Hotel

During the International Passive House Open Days, visitors can also win a prize. Anyone who takes a picture of his or her visit to a Passive House and posts it on social media using the hashtag **#iPHopendays** will automatically take part in a prize draw. The prizes include an overnight stay in a Passive House hotel in the Alps. Further information



This family home in Leeds, UK, demonstrates just how versatile a Passive House can look like, ID 5842. © Eric Parks





General Information

Passive House buildings

Passive House buildings are characterised by a high quality of insulation, windows with triple glazing and an airtight building envelope. In winter, preheated air is introduced into the building by a heat recovery ventilation system. The five basic Passive House principles allow these highly efficient buildings to dispense with *classic* building heating. Such buildings are called "passive houses" because a major part of their heating demand is met through "passive" sources such as solar radiation or the heat emitted by occupants and technical appliances. A Passive House thus consumes about 90 percent less heating energy than existing buildings and 75 percent less energy than an average new construction.

Passive House & NZEB

The Passive House Standard already meets the EU requirements for Nearly Zero Energy Buildings. According to the European Buildings Directive EPBD, all member states must specify requirements for so-called nZEBs in their national building regulations. These will come into effect from 31.12.2018 for public buildings and 31.12.2020 for all other buildings.

Pioneer project

The first Passive House in the world was built in Darmstadt-Kranichstein (Germany) 27 years ago by four private homeowners. Dr Wolfgang Feist was one of them. Ever since the homeowners moved in with their families in 1991, these terraced houses have been regarded as a pioneer project for the Passive House Standard. After extensive technical testing, building physicists attest to the still unimpaired functioning of the first Passive House and its unchanged low heating energy consumption. With its newly installed photovoltaic system, the first Passive House now utilises renewable energy and received the Passive House Plus certificate for this reason.

The world's first Passive House building in Darmstadt. © Peter Cook

Passive House and renewable energy

The Passive House Standard can be combined well with on-site renewable energy generation. Since April 2015, the new building classes "Passive House Plus" and "Passive House Premium" have been available for this supply concept. The first buildings in these two categories have already been certified, including private houses as well as office buildings.

Passive Houses worldwide

Passive Houses buildings for all types of uses now exist everywhere. In addition to residential and office buildings there are also kindergartens and schools, sports halls, swimming pools and factories built as Passive House buildings. The first Passive House hospital in the world is currently being built in Frankfurt am Main. Interest in Passive House is growing. In view of the consumption of resources in industrialised countries and the need to contain global warming, municipalities, businesses and private people are increasingly implementing new constructions or retrofits to the Passive House Standard.

Passive House Institute

The Passive House Institute with its headquarters in Darmstadt (Germany) is an independent research institute for highly efficient use of energy in buildings. The Institute founded by Dr. Wolfgang Feist holds a leading position internationally with regard to research and development in the field of energy efficient construction. Among other things, Dr. Wolfgang Feist was awarded the DBU Environmental Prize in 2001 for developing the Passive House concept.

Passive House Conference

The Passive House Institute is the organiser of the International Passive House Conference and the accompanying specialists' exhibition. The 23rd International Passive House Conference will take place on 21 and 22 September 2019 in Gaobeidian, China. <u>www.passivehouse-conference.org</u> In addition, the Passive House Conference "Besser Bauen" (Achieve Better Buildings) will be held on 3 and 4 May 2019 in Heidelberg. <u>www.heidelberg.passivehouseconference.org</u>

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Dr. Wolfgang Feist © Peter Cook