Airtight outer building construction (the “thermos flask” effect)

Careful planning and strict supervision during the construction phase can ensure buildings are constructed to be permanently airtight. A highly effective insulating layer that works in a similar way to a thermos flask – ensuring that heat is retained inside the building – surrounds the passive house. The outer walls of the complex are insulated with a 18cm thick insulating layer and the windows have three insulating glass layers with insulating mouldings; the formation of thermal bridges is systematically prevented.

The heat insulation around the building (roofing, outer walls, concrete slab) prevents the building from cooling down. Heat is retained within the building and is not lost to the exterior atmosphere.

Controlled ventilation of the living space/use of direct sunlight and inner heat sources

In a “passive house” building, a ventilation system with highly efficient heat recovery capabilities constantly suctions off exhaust air from the kitchen and bathroom. 90% of the warmth contained in this air is recovered and this heat warms the fresh air that is then directed into the living spaces.

Interior heat gains within the living unit compare with heat generated from a radiator. This means that heat generated by such sources as direct sunlight, from individuals within the unit and from electrical devices can be harnessed and used to significantly contribute to a rapid warming of the room.

The automatically controlled airing and ventilation system ensures that there is always plenty of fresh air inside – even during periods of long absences as well as during the night – without needing to open the windows.

The student residence complex built to the passive house standard is comfortable, energy efficient and environmentally friendly.
According to the latest scientific research, it is the best and most cost-effective method of generating a pleasant interior climate.

Opening the windows, especially in winter, can result in the room temperature dropping rapidly.

Generally a short, 5-minute period of opening the windows up (intense airing) will not be a problem.

The controlled ventilation of the living spaces greatly reduces the incidence of dust and the risk of mould occurring. For these reasons, people prone to allergies find passive houses very pleasant spaces.

The exhaust and ventilation openings should be kept clear of any obstruction, which means that posters or stickers should not be placed over the openings, and the poppet valve settings should not be changed or adjusted in any way.

Combined with the room ventilation system, this should mean that you will find the interior of your apartment is always a pleasant temperature.

Nevertheless, it remains a fact that energy consumption and costs are dependent on consumer behaviour. The passive house will only work if all the residents take these basic principles on board and live according to the concept of the passive house – and in this way we can take care of our natural resources and our environment.

Studierendenwerk Münster
Student Support Service

Accommodation Administration

Information and Guidelines

The Ecologically Friendly “Passive House”

Student residence Busso-Peus-Straße

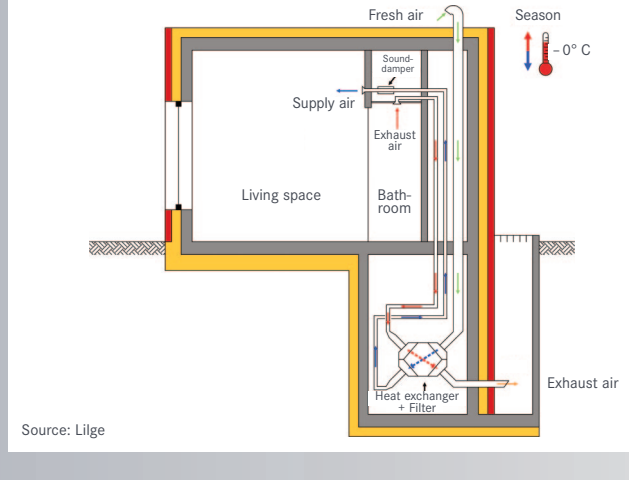
You live now in a student residence built to the ecologically friendly “passive house” standard.

Living in a building constructed as a “passive house” is almost no different from living in a building constructed in the standard way, although it is worth noting a few things so that the principle of the “passive house” construction can function as intended.

“Passive House” construction – the name says it all!
To create a comfortable room temperature for our residents in the student residence complex built to the “passive house” standard, a heating and ventilation system was installed as an integral part of the construction. The residents of the building are not required or expected to actively do anything to make the system function. However, so that this level of comfort is maintained on a long-term basis, we ask you not to change the settings on the controls at all, in other words, to remain passive in this regard. Please don’t be concerned – the interior room temperature will always be at optimal comfort levels.

The basic idea of a passive house is:
to retain heat, to recover as much heat as possible, and to use renewable energy.

How does a passive house work?



Source: Lilge

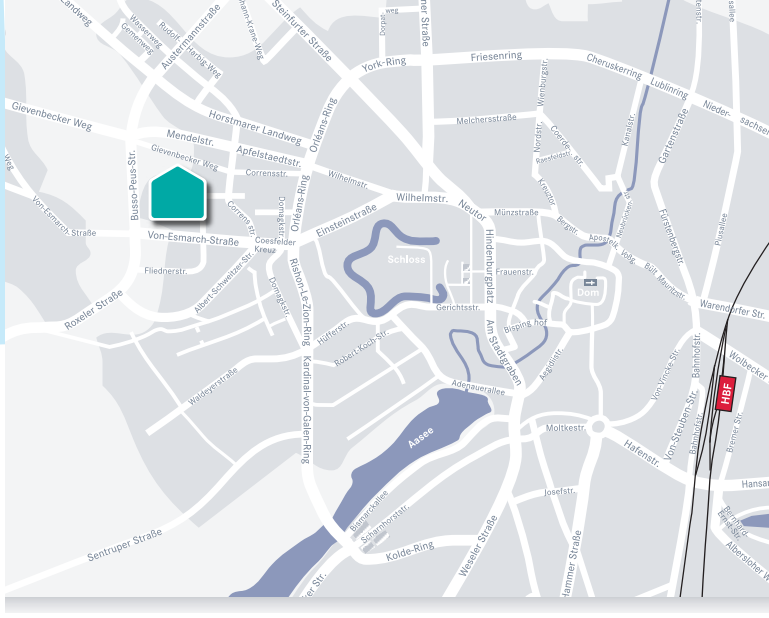
What does this mean for you? What does it mean for how you live here?

We’ve put together this information brochure to explain some of the particular features of the “passive house”.

Airtight outer construction or “building envelope”
(significantly increased insulation properties, premium quality windows, airtightness) – the more heat loss can be reduced, the less additional heating is required.

Controlled ventilation of living spaces
(comfort ventilation) with highly effective heat recovery from the recycled air.

Use of direct sunlight and inner heat sources
(Body heat generated by the occupants and heat generated by household appliances)



Studierendenwerk Münster
Student Support Service

ACCOMMODATION
ADMINISTRATION
Bismarckallee 5, 48151 Münster
wohnen@stw-muenster.de

www.stw-muenster.de

Student Residence Busso-Peus-Straße 18–20

HOUSE MANAGEMENT
Busso-Peus-Straße 18-20
Phone/Fax 0251 837-91 80
busso-peus-strasse@stw-muenster.de

ADMINISTRATION/ACCOMMODATION OFFICE
Bismarckallee 5
Phone 0251 837-95 53
wohnen@stw-muenster.de

sustainable and inexpensive living