

Object name

**Sonnen Passivhaus Freundorfer****Germany**

Object photo



Object description

Certified Passive House built up in 2005 as generation house. Construction timber frame insulated with cellulose. Planning was made by Arch. Elke Kneissl from Augsburg. The house constructed by Holzbau Steger was positioned on one day. A certified window construction named "Zwoa2Holz" from OPTIWIN is used. The heating system, planned by btec Rosenheim is a water-based stove for wooden locks.

The project is made as generation house. That means three different possibilities to use are included. One is as a single-family house with 175 m<sup>2</sup>, the second as one dwelling with 145 m<sup>2</sup> and another with 30 m<sup>2</sup>, the third is partitioning 110 m<sup>2</sup> to 65 m<sup>2</sup>. The house is used as example house in the courses for the certified passive house planner.

Fact sheet

**One family House** in 83080 Oberaudorf  
 Treated Floor Area **175 m<sup>2</sup>**  
 Number of apartments **1-2**  
 Completion date **2006**

**Energy standard [PHPP]**

Heat requirement / year **15 kWh/m<sup>2</sup>a**  
 Heat load **13 W/m<sup>2</sup>**  
 Primary energy requ. **85 kWh/m<sup>2</sup>a**  
 Air-tightness (n<sub>50</sub>-value) **0,53 1/h**  
 Building type **Timber construction**

**U-value**

Exterior wall **0,10 W/m<sup>2</sup>K**  
 Roof **0,10 W/m<sup>2</sup>K**  
 Basement floor /  
 Floor slab **0,10 W/m<sup>2</sup>K**  
 Windows / average **0,86 W/m<sup>2</sup>K**

**Specification ventilation system**

Central System

**Heating installation**

Firewood, solar collector

Construction costs **1828 Euro/m<sup>2</sup>****Building owner**

Franz and Josefa Freundorfer

**Architect/Planner**

Arch. Elke Kneissl

**Photo credits**

Arch. Martin Schaub