

Object name

**Single family house in Altenmarkt****Germany**

Object photo



Object description

The single family house in Altenmarkt (Bavaria) is built with a basement outside the thermal envelope.

The building is a timber construction and all building materials are chosen under the aspect of their environmental compatibility.

A Compact Unit provides the heating with supply-air and also generates the hot water. The frost protection of the Compact Unit is realised with a brine-bearing subsoil heat exchanger.

For supporting the Compact Unit in a wood fired oven is additionally built-in. The preparation for upgrading the building with photovoltaic panels is done.

Fact sheet

Single family house in 83352 /  
Altenmarkt

Treated Floor Area	210 m <sup>2</sup>
Number of apartments	1
Completion date	2005

**Energy standard [PHPP]**

Heat requirement / year	14 kWh/m <sup>2</sup> a
Heat load	--- W/m <sup>2</sup>
Primary energy requ.	42 kWh/m <sup>2</sup> a
Air-tightness (n <sub>50</sub> -value)	0,4 1/h
Building type	Timber construction

**U-value**

Exterior wall	0,116 W/m <sup>2</sup> K
Roof	0,099 W/m <sup>2</sup> K
Basement floor / Floor slab	0,136 W/m <sup>2</sup> K
Windows / average	0,85 W/m <sup>2</sup> K

**Specification ventilation system**

Compact Unit with subsoil heat exchanger for frost protection

**Heating installation**

Compact Unit, wood oven

Construction costs --- Euro/m<sup>2</sup>

**Building owner**

private

**Architect/Planner**

House owner

**Photo credits**

Lebensraum Holz, Bad Aibling