

Object name

Residential house Zadobrova**Slovenia**

Object photo



Object description

Low energy 2 L residential house is according to architectural plan built quite compact.

It has in two floors approximately 206 m² of heated area. All floors are constantly heated to 20 °C and have central ventilation system with recuperation installed. According to micro-clima and climatic values for central Slovenia, quite sufficient characteristics can be achieved with good transmittance characteristic of transparent and non transparent parts of building enclosure.

In house will live five people, so internal heat sources will play important role in energy balance in house. With average power of internal heat sources (1.6W/m²) we can cover 60 % of heat losses.

House has installed central ventilation system (max flow ca. 200 m³/h, at 0.3 h⁻¹ with average flow ca. 160 m³/h) with recuperation of heat from outflow air (between 85 in 90%), without which low-energy or passive house technology cannot be achieved.

The house was designed and constructed by the company Eko produkt d.o.o.

Fact sheet

Residential house in Zadobrova, Ljubljana

Treated Floor Area 206 m²

Number of apartments 1

Completion date 2009

Energy standard [PHPP]

Heat requirement / year 15 kWh/m²a

Heat load 14 W/m²

Primary energy requ. 99 kWh/m²a

Air-tightness (n₅₀-value) 0.6 1/h

Building type wood construction

U-value

Exterior wall 0.103 W/m²K

Roof 0.106 W/m²K

Basement floor / 0.133 W/m²K

Floor slab

Windows / average 0.75 W/m²K

Specification ventilation system

Central system

Heating installation

Compact unit

Construction costs 1200 Euro/m²

Building owner

Private

Architect/Planner

Martina Tomšič, Biro 42

Photo credits

Mirko Škvorc, Eko produkt d.o.o.