

Object name

## Residential house in Repnje in Vodice

Object photo



Object description

House in Repnje is passive house built from wooden skeleton founded in cellulose insulation. House has cellar (massive built), ground floor and mansard and has altogether 283 m<sup>2</sup> of heated area. It is oriented towards southeast.

House is heated with central ventilation system and solar collector system. During heating season heat from solar radiation through windows is also collected and also heat released from electrical appliances and residents contributes to heating. Controlled ventilation with recuperation enables influx of fresh and clean air. Rate of air exchange is  $n_{50} < 0.6$  h<sup>-1</sup> and ensures efficient air-tightness. Efficient thermal insulation of outer non-transparent walls without thermal bridges and highly efficient triple glazed windows enable constant internal temperature in winter and in summer. House has collector for rainwater.

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

Fact sheet

Residential house in Repnje in Vodice  
Treated Floor Area 282,53 m<sup>2</sup>  
Number of apartments 1  
Completion date 2009

### Energy standard [PHPP]

Heat requirement / year 13 kWh/m<sup>2</sup>a  
Heat load 11 W/m<sup>2</sup>  
Primary energy requ. 59 kWh/m<sup>2</sup>a  
Air-tightness ( $n_{50}$ -value) 0.6 1/h  
Building type wood construction

### U-value

Exterior wall 0.097 W/m<sup>2</sup>K  
Roof 0.097 W/m<sup>2</sup>K  
Basement floor / Floor slab 0.165 W/m<sup>2</sup>K  
Windows / average 0.75 W/m<sup>2</sup>K

### Specification ventilation system

Central system

### Heating installation

Compact unit

Construction costs 1400 Euro/m<sup>2</sup>

### Building owner

Mirko Škvorc

### Architect/Planner

Rado Bedene, Studio Naris d.o.o.

### Photo credits

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