

Object name

**EPD Turen****Slovakia**

Object photo



Object description

The building is placed in a suburb of the town Senec surrounded by small family houses. The entrance to the building is on the north side.

The single family passive house with massive construction, has an airtightness 0,63 1/h. The building has two stories. The house hasn't a compact shape as the mass of the second storey is only above a part of the first. But the result of 12 kWh/m<sup>2</sup>a heat requirement is still very good.

The building construction is from aerated concrete blocks with Neopor insulation.

For heating and ventilation the compact unit aerosmart xls is installed. The unit prepares a domestic hot water with mini heat pump which is designed as an air-brine heat pump. This brine is not just used as an energy source for heating and hot water preparation, it is also used directly for frost-prevention of the outside air.

Fact sheet

**Single family house in Turen**

Treated Floor Area	178,4 m <sup>2</sup>
Number of apartments	1
Completion date	2010

**Energy standard [PHPP]**

Heat requirement / year	12 kWh/m <sup>2</sup> a
Heat load	14 W/m <sup>2</sup>
Primary energy requirement	kWh/m <sup>2</sup> a
Air-tightness (n <sub>50</sub> -value)	0,63 1/h
Building type	Massive construction

**U-value**

Exterior wall	0,096 W/m <sup>2</sup> K
Roof	0,085 W/m <sup>2</sup> K
Basement floor /	
Floor slab	0,119 W/m <sup>2</sup> K
Windows / average	0,82 W/m <sup>2</sup> K

**Specification ventilation system**

Central System, Compact unit Drexel und Weiss: aerosmart xls

**Heating installation**

Compact unit Drexel und Weiss: aerosmart xls

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

**Building owner**

private

**Architect/Planner**

Ing.arch.Eugen Nagy

**Photo credits**

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