



SOLARCHITECTURE
building solutions



Hofberg 6/7



Address

Hofbergstrasse 21, 9500 Wil, Switzerland



Location

47°28'13" N | 9°02'57" E



Altitude

607 MAMSL

With the support of



SWISSOLAR 

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Solar geometry

The existing single-family house was replaced by a Minergie-P multi-family dwelling. In addition to five apartments, the building also houses some offices. This seven-storey PlusEnergyBuilding (PEB) lies at the foot of the Hofberg Mountain, given the peculiarities of the terrain, it was necessary to build 7 floors, four of them above ground. Thanks to high-efficiency monocrystalline modules installed both on the roof and on the south facade, in correspondence of the floor courses, the building produces 186% of its energy demands. The facade works through the interaction between its geometry and the position of the sun according to the seasons, absorbing or shielding the solar radiation depending on the actual needs. This project shows by example how well-insulated buildings with carefully integrated energy systems could shape architecture.





The photovoltaic covered floor courses mark off the horizontal divisions of the elevations.



Lucido® is composed of few elements conceived according to the principle of modular constructions, this principle allows to adapt this product to all types of constructions.

Energy

			Energy production
Active solar surface	294 m ²	51 m ²	55,300 kWh
Active solar surface ratio	50 %-75 %	20 %-25 %	Self - consumption
Peak power	50 kWp	8 kWp	n/a
Building skin application	Flat roof	Cold facade	



Building characteristics

Building typology

Residential

Construction type

New

Year of construction

2011

Energy reference surface

1,306 m²

Energy index

22.9 kWh/m²a (heating and electricity)

Energy labelling

Minergie-P



Dummies (non active modules) are used on the north, east and west facades.

BIPV module

Product

SPR 238E-WHT (roof),
Custom-made (facade)

Cell colour

Black

Manufacturer

SunPower Corporation

Dimensions

1,559x798x46mm (SPR 238E-WHT)

Cell technology

Mono-crystalline

Specific power

238 Wp (SPR 238E-WHT)



Parties involved

Owner

Giuseppe & Katharina Fent

Architect

Fent Solare Architektur

Photovoltaic installer

Stromaufwärts-Photovoltaik, Ertex Solar-technik GmbH

Specialist planner

Lucido Solar AG

Photo

Fent Solare Architektur

Awards, recognitions & info.

Awards and recognitions

Norman Foster Solar Award 2012

Photovoltaic costs

227,000 CHF (Roof); 67,000 CHF (Facade)

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