



SOLARCHITECTURE
building solutions



Project in Zwirnerstrasse



Address

Zwirnerstrasse 78, 8041 Zurich-Leimbach, Switzerland



Location

47°20'17" N | 8°31'00" E



Altitude

434 MAMSL



A scaled skin solar envelope

The whole building envelope has a homogeneous appearance thanks to glass elements used as cladding and tiles. Both the facade and the roof are fully covered with photovoltaic elements where the front layer is a laser printed brown glass which hides mono-crystalline silicon cells. The PV cells hidden by the front glass which reduce the electricity production by about 39%. These modules have been specifically developed for this project.



Ground floor layout.



The cell structure disappears behind the light printing on the matt front glass. Photo: Pascal Widerkehr

Energy

Active solar surface	n/a	402 m ²
Active solar surface ratio	n/a	>75%
Peak power	n/a	25 kWp
Building skin application	Flat roof	Cold facade
Storage	n/a	n/a

Energy production

21'000

kWh

Source: Bauen & wohnen - Immer warm dank Sonnengas, 15.06.18

Self-consumption

n/a



Building characteristics

Building typology

Residential

Energy reference surface

1323 m²

Construction type

New

Energy index

n/a

Year of construction

2017

Energy labelling

-



View of the north facade.

BIPV module

Product

Custom made

Front glass type/customization

Digital ceramic print on glass/glass
BIPV modules

Manufacturer

KYOTO Photovoltaics SCHWEIZ GmbH.
Facade system developed by René
Schmid

Dimensions

Custom made

Cell technology

Mono-crystalline

Specific power

n/a



Building skin

Roof

Application

Standard modules are laid on a metallic support system.

Description

Flat concrete roof insulated with mineral wool.

U value

n/a

Fastening system

Continuous fixing system (aluminium tracks)

Other

-

Facade

Application

PV cladding integrated in a cold facade

Description

Concrete walls insulated with mineral wool.

U value

n/a

Fastening system

Continuous fixing system (aluminium tracks)

Other

-

Glass surface

Application

Windows

Description

Triple glazing with aluminium frame

U value

n/a



The facade is almost completely covered with solar modules. Photo: Pascal Wiederkehr.



Costs

Total cost of the building

n/a

Price per m³

n/a

Parties involved

Owner

n/a

Architect

René Schmid Architekten
AG

Project partner

Umwelt Arena Schweiz

Photovoltaic installer

n/a

Photovoltaic consultant

n/a

Photo

Beat Bühler

Awards & recognitions

Awards

-

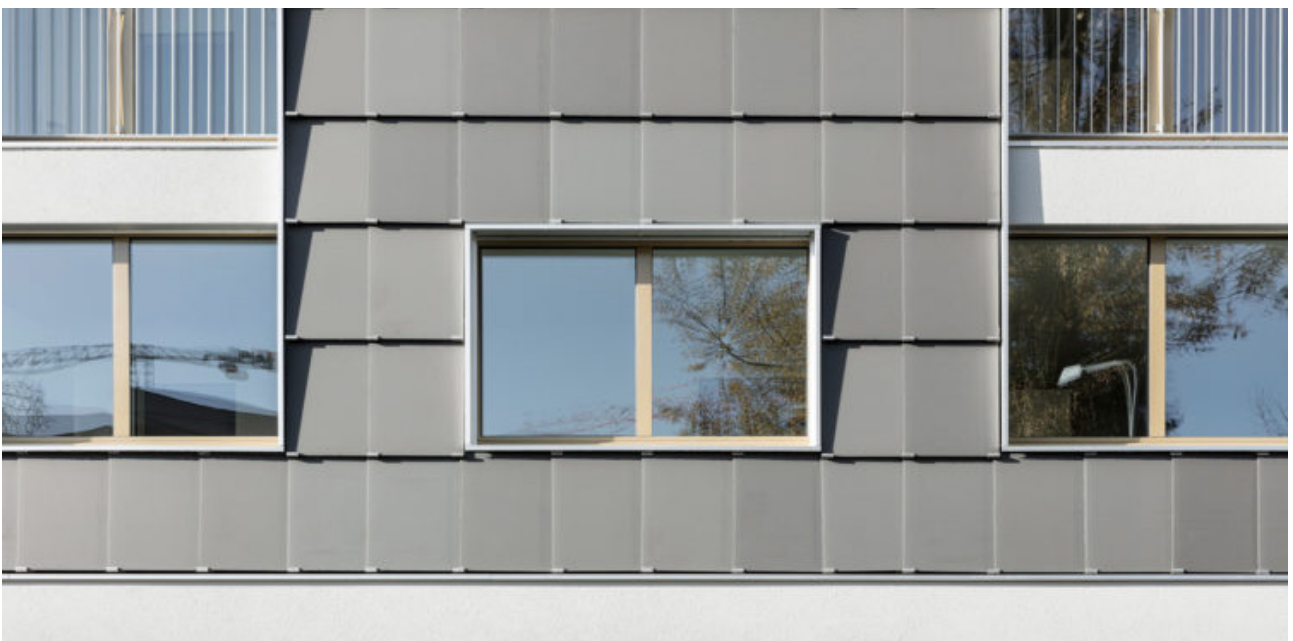
Publications

Bericht NZZ vom
01.02.2018 (only in DE)

Medienmitteilung der
Umweltaren Spreitenbach
AG (only in DE)

Der Landbote vom
26.01.2018 (only in DE).

Hochparterre
(Presseschau) vom
01.02.2018 (only in DE)



Colorless anodised aluminium frame. Photo: René Schmid Architekten AG

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