University of Applied Sciences and Arts of Southern Switzerland
Department of Environment Constructions and Design
Institute of Applied Sustainability to the Built Environment

SUPSI

Swiss BiPV Competence Centre

Cold
facade

Werkhof Riehn
Riehn, Canton Basel(CH)

Building Details

CONTACTS	Name	Website (or e-mail)
Owner	Riehen (BS), Svizzera	www.riehen.ch
Architect	-	-
Energy Consultant	TRITEC AG Schweiz	www.tritec-energy.com
PV Installer	TRITEC AG Schweiz	www.tritec-energy.com

BUILDING

Completion year	- Building	2005 PV Plant

Category	New	Renovation	Enlargement	Other
Typology	Residential	Administration	Industrial	Sport
	Agricultural	Urban	Historical	Other

Building Energy Performance   kWh/m²y

Description

This BiPV example regards a building renovation in Riehn, in Canton Basel. In 2004 Riehen was the first community to be awarded with the «European Energy Award Gold» for its energy policies.

The intervention is a perfect union between energetic and aesthetic requirements. It concerns the improvement of the flat roof thermal insulation, the substitution and expansion of the PV plant on the roof and the integration of a special PV system in the façade. The old façade cladding has been replaced by polycrystalline grey and blue cells, introducing a new and not conventional aspect of the building and creating a brilliant effect.

Aknowledgments   -

SOURCE: www.tritec-energy.com

SOURCE: www.suntechnics.ch

BiPV Details

LOCATION OF PLANT

Roof	Flat roof	Sloped	Curved	
Façade	Cladding	Balcony	Greenhouse	Curved
Glass	Façade	Roof	Solar shading	Canopy
Orientation	South	West	East	North
BiPV System	Facade opaque cladding;			
	On roof overlapped system (BAPV)			

ARCHITECTURAL EVALUATION

Color	Black (roof); blue/gray (facade).
Transparency	opaque
Frame	frameless

COSTUMIZATION LANGUAGE AT COMPONENT SCALE

PV CELL	MODULE LAYERING	MODULE FEATURES	DUMMIES

DESCRIPTION Special dimension of the modules on the higher part of the façade.

SPECIFICATION

Photovoltaic	Monocrystalline	Multicrystalline	Thin Film
PV Module	**Cells**	Monocrystalline Silicon (roof); Multicrystalline (façade)	
	Module	51 Suntechnics STM 180-mono (roof); 180 Special Sharp element-poly (facade)	
Power	**kWp**	9 (roof); 15.5 (façade)	
Size	**m²**	170 (façade)	
Energy production	**kWh/year**	7650 (roof); 8990 (façade)	
Cost	**€/m²**	-	