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

Pitched roof

Three in one Sport Center

Visp, Canton Valais(CH)

Building Details

CONTACTS	Name	Website (or e-mail)
Owner	EnAlpin AG Visp (plant)	www.enalpin.ch
Architect	savioz fabrizzi architectes	www.sf-ar.ch
Energy Consultant	TRITEC AG Schweiz	www.tritec-energy.com
PV Installer	TRITEC AG Schweiz	www.tritec-energy.com

BUILDING

Completion year	2010-2012 Building		2012 PV Plant	
Category	New	Renovation	Enlargement	Other
Typology	Residential	Administration	Industrial	Sport
	Agricultural	Urban	Historical	Other
Building Energy Performance		**kWh/m² y**	-	

Description

The sport centre, mainly designed for the college, is composed by 3 juxtaposed but independent halls. The compact dimension, the energy efficient envelope and the controlled ventilation have enabled to achieve the Minergie standard. Thanks to the PV plant integrated within the sloped roofs the building received the Swiss Solar Price 2012. The total surface of 1,200 m2 of the three roofs, installed on the south side with an inclination of 15°, is completely covered with high efficiency multicrystalline PV modules, yearly providing 130,500 kWh/y for a power of 145 kW. This PV plant covers 45% of the overall energy demand of the sport hall.

Aknowledgments Swiss Minergie standard; Swiss Solar Prize 2012

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	In-Roof Solar Tiles (PV modules)			

ARCHITECTURAL EVALUATION

Color	Black
Transparency	opaque
Frame	Aluminium, black anodized and coated

COSTUMIZATION LANGUAGE AT COMPONENT SCALE

PV CELL	MODULE LAYERING	MODULE FEATURES	DUMMIES
DESCRIPTION			

SPECIFICATION

Photovoltaic	Monocrystalline	Multicrystalline	Thin Film
PV Module	**Cells**	Polycrystalline (cell 156x156)	
	Module	Kyocera KD245GH-2PB	
Power	**kWp**	145	
Size	**m²**	1200	
Energy production	**kWh/year**	130500	
Cost	**€/m²**	-	