

Flumroc Headquarter -Plus Energy Building

Flums, Canton St. Gallen (CH)

Building Details

CONTACTS	Name	Website (or e-mail)		
Owner	Flumroc AG	www.flumroc.ch		
Architect	Viriden + Partner AG, Zürich	www.viriden-partner.ch		
Energy Consultant	Heizplan AG	www.heizplan.ch		
PV Installer	Gasser Fassadentechnik AG, St. Gallen	www.gasserfassadentechnik.ch		
BUILDING				
Completion year	1980 Building	2013/2014 PV Plant		
Category	New	Renovation	Enlargement	Other
Typology	Residential	Administration	Industrial	Sport
	Agricultural	Urban	Historical	Other
Building Energy Performance	kWh/m²y	-		

Description

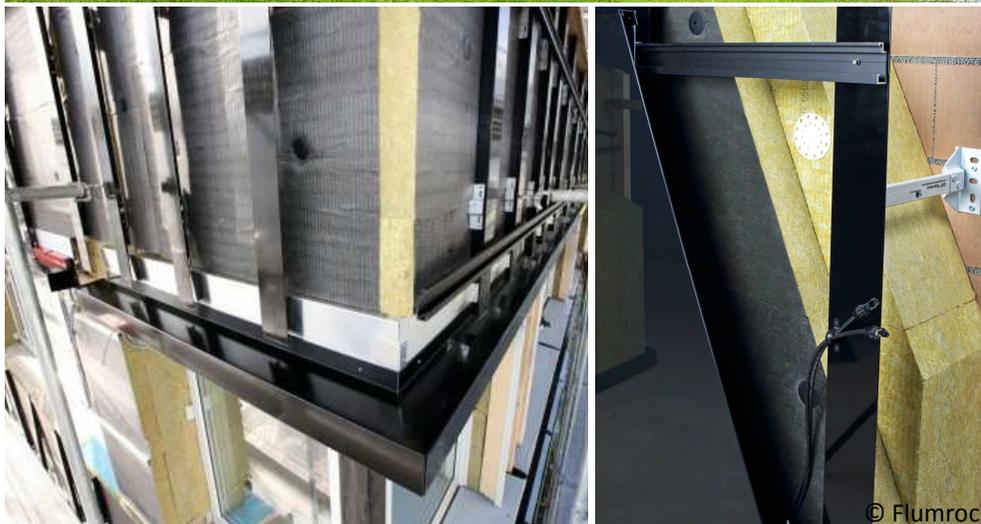
This office building of Flumroc, producer of insulating material, has been renovated according to the energetic strategy 2020, achieving the energy self-sufficiency and satisfying important requirements of sustainability. The intervention is based on the preservation of the original structure, on which a thermal insulation has been provided besides to the integration of an interesting PV façade system as a new architectural image. Besides to the on-roof PV plant, that covers 61% of energy demand, facades (on South-East, South-West, Nord-East) are based on the alternation of dark solar bands and windows. The Nord-west façade has a compact insulated structure plastered with a dark color paint.

Aknowledgments

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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	Façade opaque cladding (cold façade); On roof overlapped system (BAPV).		

ARCHITECTURAL EVALUATION

Color	Black
Transparency	opaque
Frame	Anodized aluminum black color

COSTUMIZATION LANGUAGE AT COMPONENT SCALE

PV CELL	MODULE LAYERING	MODULE FEATURES	DUMMIES
DESCRIPTION			

SPECIFICATION

Photovoltaic	Monocrystalline	Multicrystalline	Thin Film
PV Module	Cells	- Monocrystalline (Roof); - CIS substrate glass (cadmium free) Façade	
	Module	- LG290N1C-G3(Roof); - Solar Frontier SF-170-S (façade)	
Power	kWp	71.3 (Roof); 57.3 (Façade)	
Size	m²	403(Roof); 413(Façade)	
Energy production	kWh/year	63500(Roof); 40500 (Façade)	
Cost	€/m²	-	