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

Glass roof

Flat roof

Solar E-Carpot

Feldkirch-Tosters (A)

Building Details

CONTACTS	Name	Website (or e-mail)
Owner	MGT-Mayer Glastechnik	www.mgt.at
Architect	MGT-esys GmbH	www.mgt-esys.at
Energy Consultant	MGT-esys GmbH	www.mgt-esys.at
PV Installer	MGT-esys GmbH	www.mgt-esys.at

BUILDING

Completion year	Building		Plant	
Category	New	Renovation	Enlargement	Other
Typology	Residential	Administration	Industrial	Sport
	Agricultural	Urban	Historical	Other
Building Energy Performance	-			

Description

This prototype carport and service station, with charging sockets and integrated lighting, is installed in the headquarters of MGT Mayer Glass GmbH Tosters in Feldkirch. On the structure of the carport, fully realized with galvanized steel, BIPV panels in triple laminated safety glass with mono-crystalline are installed. In the lateral side, conventional glass is used as a weather protection. The 28 PV modules installed on the canopy, long 11.4 m and depth 2.9 m, has a capacity of 3100 Wp, producing 2900 kWh/ y: enough energy to travel 11,500 km / y with an electric car. PV modules have been customized by varying the spacing of the cells, and consequently the transparency and shading factor.

Aknowledgments -

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 Constructive System	canopy			

ARCHITECTURAL EVALUATION

Color	Black
Transparency	36 %
Frame	Framless (glass-glass)

COSTUMIZATION LANGUAGE AT COMPONENT SCALE

PV CELL **MODULE LAYERING** **MODULE FEATURES** **DUMMIES**

DESCRIPTION PV modules can be customized by varying the spacing of the cells, and consequently the transparency and shading.

SPECIFICATION

Photovoltaic	Monocrystalline	Multicrystalline	Thin Film
PV Module	**Cells**	Monocrystalline high performance SUNWAYS	
	Module	MGT-esys Verbund	
Power	**kWp**	3.1	
Size	**m²**	33	
Energy production	**kWh/year**	2900	
Cost	**€/m²**		