

Distribuído Exclusivamente no Brasil



BIPV - BUILDING INTEGRATED SOLAR SOLUTIONS



Next Generation Building Integrated Photovoltaics

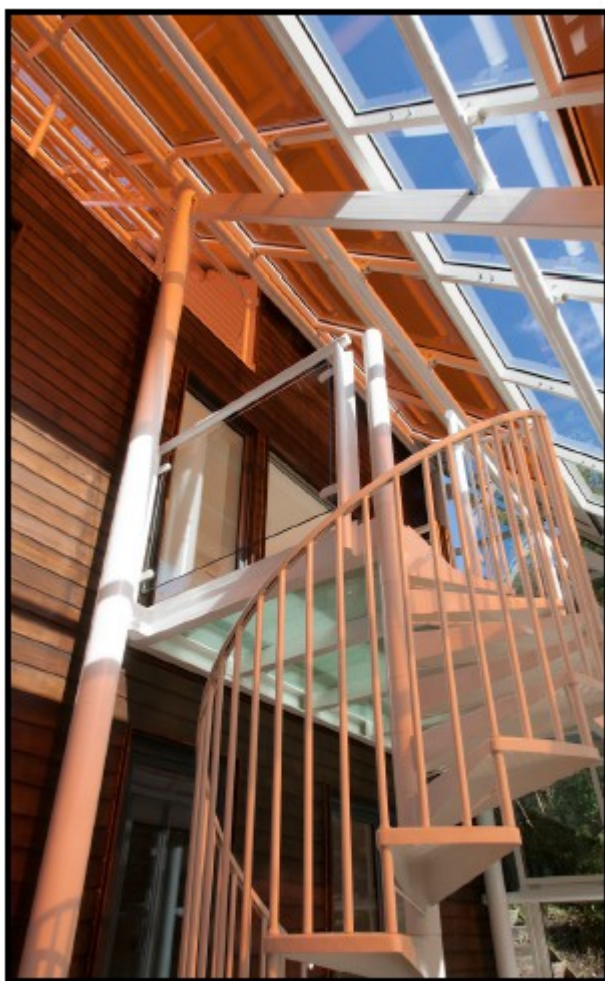
Polysolar's unique photovoltaic glass is a truly multifunctional building material, combining high performance glazing with renewable energy generation. Whether a new build or retrofit project, Polysolar's PV glazing offers developers the opportunity to meet the demand of stringent energy and environmental regulations within a single product. Offering the simplicity and flexibility of incorporation into standard curtain walling and rain screen systems, the solar PV glass not only adds valuable credits for BREEAM but delivers a return on investment.

The sleek aesthetics and high energy yield of Polysolar PV glazing panels makes them ideal for a wide range of architectural applications, from building facades to overhead canopies. Our international accreditations with IEC, UL and Microgeneration Certification Scheme (MCS) provides the assurance of meeting building regulation approval and eligibility for renewable energy subsidies.

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How We Work:

Architects & Specifiers

Our Cambridge based team provides technical support to architects and specifiers when deciding on the best solutions for integrating PV glazing into the building envelope. We bring an extra dimension throughout the initial stages of design and tender, to provide clients with not only a superb design but also the economic and environmental credentials unmatched by any other building material.

Contractors & Developer

We take pride in our products and professionally delivered services. From our network of independent structural fabricators, façade experts, glazing specialists and certified electricians we can facilitate multi-layered contractors or slot into an established supply chain. We can offer a comprehensive integrated package that ensures a clear and precise design, supply and install package without added risk to the project schedule.

Fabricators & Installers

From petrol filling station canopies, walkways, carports, skylights, balconies, bries-soleil through to curtain walling and rainscreen cladding systems our products deliver a differentiated and competitive edge to your service provision. Our PV glass is easily integrated into standard glazing systems enabling a clear delineation between the structural and PV system liabilities. We are continually looking to broaden our installation and system fabricator network, expanding the application possibilities and bringing BIPV solutions to a wider market.



Hamish Watson, CEO

Polysolar is an awarding winning UK developer and producer of BIPV glazing. Established in 2007 by CEO Hamish Watson, the company currently produces a unique range of translucent and opaque thin-film amorphous silicon PV glass panels. Polysolar is also at the forefront of developing next generation fully transparent PV window glazing units based on organic polymers in collaboration with Solvay and Pilkington.



work of experienced and highly regarded partners, we are able to work with architects and engineers throughout the construction industry to deliver turnkey and bespoke PV building envelope solutions.

As leaders in Building Integrated Photovoltaic (BIPV) glazing, we can provide a one-stop solutions to your building needs. Our unique transparent and opaque PV panels deliver the benefits of:

Cost Effective Building Material

- Price competitive per m2 with conventional building cladding and glazing materials
- Marginal additional installed cost over conventional building materials
- Attractive payback periods with a Return on Investment
- Performance warranted for 25 years. Maintenance free

High energy yield and non-position dependent

- Superior low and ambient light performance making it suitable for vertical and horizontal locations and non optimum positions
- Maintains power output at higher temperatures negating the need for ventilation enabling direct insulation or incorporation in DGUs
- Electrical design offers tolerance to shading and reduced system power losses

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- Electrical design offers tolerance to shading and reduced system power losses
- Transparent panel uniquely can absorb light from both sides

Environmentally Friendly

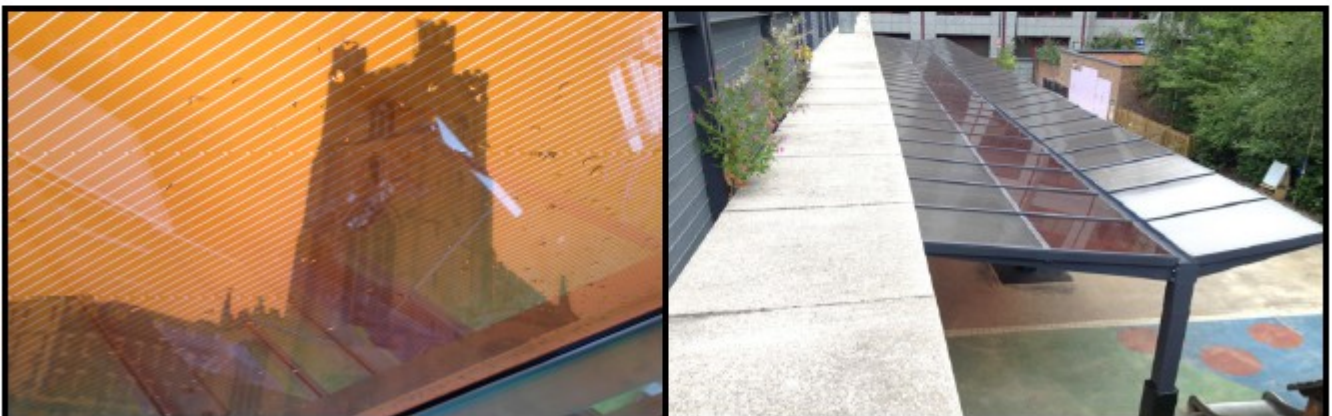
- Lowest embedded energy of any renewable technology
- No toxic, heavy metals or rare earth elements used in manufacture
- Exceptionally low lifecycle costs and fully recyclable
- Multi-functional offering reduced thermal gain and improved insulation to the building

Building Regulation Compliance

- Significant BREEAM Credits – Up to 13 in categories of Health & Wellbeing, Energy & Innovation
- DGU offer Shading Coefficient 0.49, g-value 0.42, and u-values of 1.2
- Structural laminate safety glass suitable for wide range of applications
- Enhanced Planning acceptance

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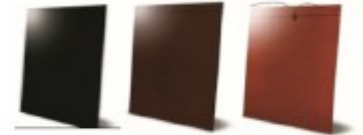
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GET IN TOUCH
 For more information
 on Polysolar and our
 ground-breaking
 energy producing
 building materials
 please email
info@polysolar.co.uk
 or call 01223 911534

Product Specifications

Model Type (laminated glass-glass modules)	PS-A Series Chestnut Opaque	PS-C Series Amber Translucent	PS-D Series Black Opaque
Active Material of Cell	Amorphous Silicon (a-Si)		Amorphous silicon and microcrystalline
Front Cover	Float glass, thickness: 3.2 mm		
Back Cover	Thermally strengthened glass 3.2mm thick [scs=10,000psi]	Float glass 3.2mm thickness	Tempered glass 3.2mm thick
Transparency	0%	20%±3.5%	0%
Dimensions	1100mm±2/-1mm x 1300mm±2/-1mm		
Weight	24.0± 0.5Kg		
Certifications	IEC 6164 & 61730 by TÜV- Rheinland MCS – NQA certified for 75-100Wp range		
Panel Performance	100W	90W	130W

Electrical Specifications

Model	Power	Stabilized Performance				Initial Performance				Max over current rating	Temp Co- efficient	Max System Voltage
		V _{mpp} (V)	I _{mp} (A)	V _{oc} (V)	I _{sc} (A)	V _{mpp} (V)	I _{mp} (A)	V _{oc} (V)	I _{sc} (A)			
PS-A- 67A	100W	103	1.00	130	1.24	111	1.19	141	1.30	2.0	T _{sc} +0.04 %/K V _{oc} -0.34 %/K P _{mp} -0.22 %/K	1000v DC (IEC) 800v DC (UL)
PS-C- 901	90W	103	0.90	137	1.15	111	1.06	140	1.20	2.0	I _{sc} +0.09 %/K V _{oc} -0.34%/K P _{mp} - 0.20%/K	
PS-D- 130	130W	71	1.86	92	2.22	73	2.09	93	2.29	2.5	I _{sc} +0.07 %/K V _{oc} -0.33 %/K P _{mp} - 0.27%/K	

The modules electrical ratings are measured under Standard Test Conditions (STC) and have been delivered on the specific table of electrical characteristics as shown above. A photovoltaic module may produce more current and/or voltage than reported at STC. Sunny, cool weather and reflection from snow or water can increase current and power output. Therefore, the values of I_{sc} and V_{oc} marked on the modules should be multiplied by a factor of 1.25 when determining component voltage ratings, conductor capacities, fuse sizes, and size of controls connected to PV output. [STC]: 1000 W/m², AM 1.5, 25. The exactly measured electrical characteristics are shown on the label of the modules. All electrical data is average production data and is subject to a measuring equipment tolerance; module nominal power is subject to a tolerance of ±2% and power class is sorted on basis of +4.99Wp/-0Wp. Manufacturer warranty: 5 years Performance Warranty; 10 years @ 90% of power rating & 25 years @ 80% of power rating.

Endereço: Doutor Arthur Jorge, 1096
 Edifício 5º Avenida - Centro
 Campo Grande - MS
 Telefone: (67) 3026.2662
www.nexsolar.com.br
 Email: comercial@nexsolar.com.br