



BEST OF PROJECTS AWARDS
Winner

THE **ARCHITECTS**
NEWSPAPER
2015 GAME CHANGER

glass
magazine
award winner
2015 MOST INNOVATIVE GLASS

FROST & SULLIVAN
2016 GLOBAL LEADER
for Building Integrated
Photovoltaic Glass

BUILD
2016 BEST GLOBAL
Photovoltaic Glass Provider

100%	REDUCTION IN HVAC ENERGY DEMAND
<1 year	PAYBACK PERIOD
0.01 USD per kWh	ENERGY COST

PHOTOVOLTAIC GLASS FOR BUILDINGS



PHOTOVOLTAIC GLASS FOR BUILDINGS



"Solar architecture is not about fashion, it is about survival"

Sir Norman Foster

More than 30 awards attest our global leadership:



100% REDUCTION IN HVAC ENERGY DEMAND

<1 YEAR PAYBACK 0.01 US \$ ENERGY COST PER kWh



Avila, 29th April 2016
Camera Olympus Digital
Camera E-450
Exposure: 10/1005
Speed ISO: ISO-200
Focal length: 25mm
Distance between the camera and the glass: 3m
No Flash
Maximum aperture: 3.61328125



Exposure: 1/155
Speed ISO: ISO-400
Focal length: 29mm
Distance between the camera and the glass: 1.5m
No Flash
Maximum aperture: 3.61328125

Give your electricity bill a break; use Photovoltaic Glass.

Onyx Solar® glass is the first and only glass in the market that generates free clean electricity for your building while providing thermal and acoustical insulation, day lighting and sun control, as required by design. This combination of active and passive properties leads to outstanding return on the investments, as well as an important reduction in CO₂ and other greenhouse gases emissions.

Would you like to evaluate the economic advantages of using Photovoltaic Glass for your building's envelope?

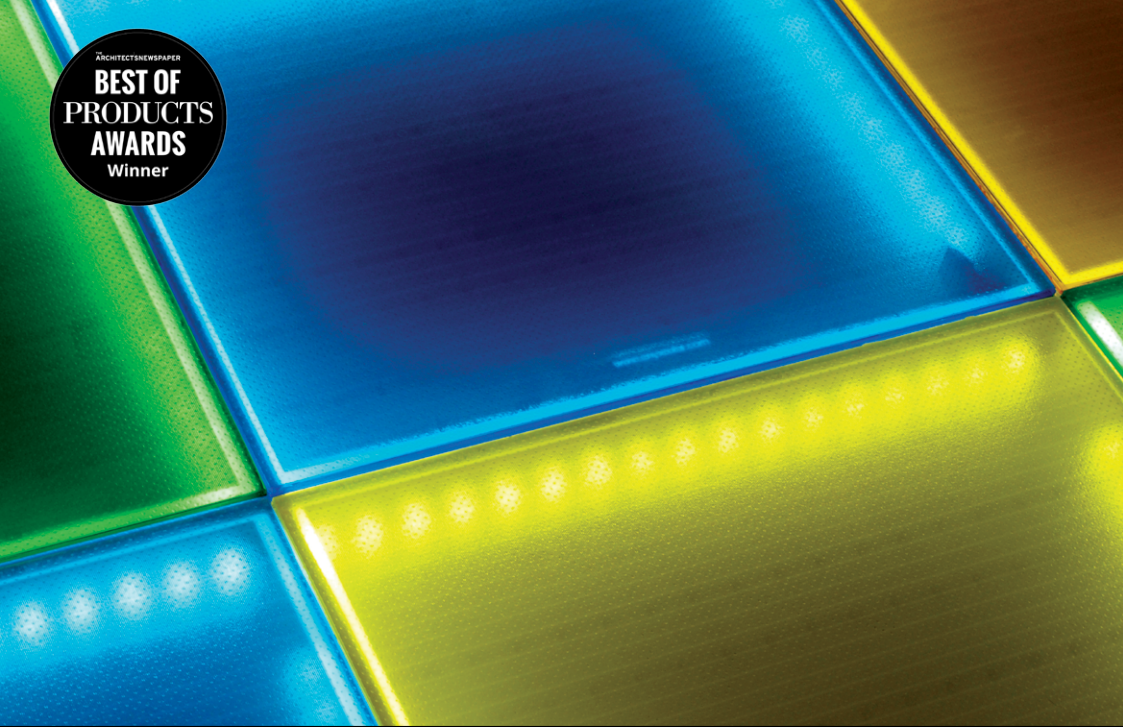
You will get a sample Feasibility Study & Return On Investment on our website at the ALL YOU NEED section. The report shows the economic advantages of using photovoltaic insulating glass units of Onyx Solar® in a given building, compared to a traditional insulating glass unit.



CURTAIN WALL

DOUBLE SKIN

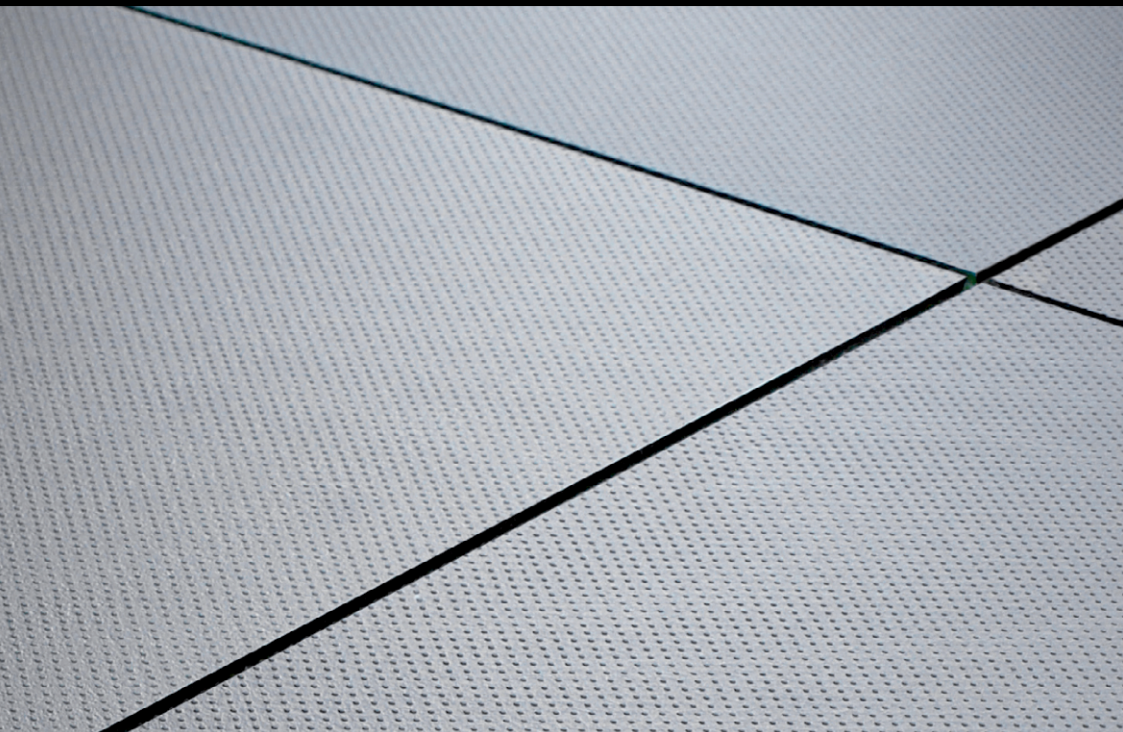




ARCHITECTSNEWSPAPER
**BEST OF
PRODUCTS
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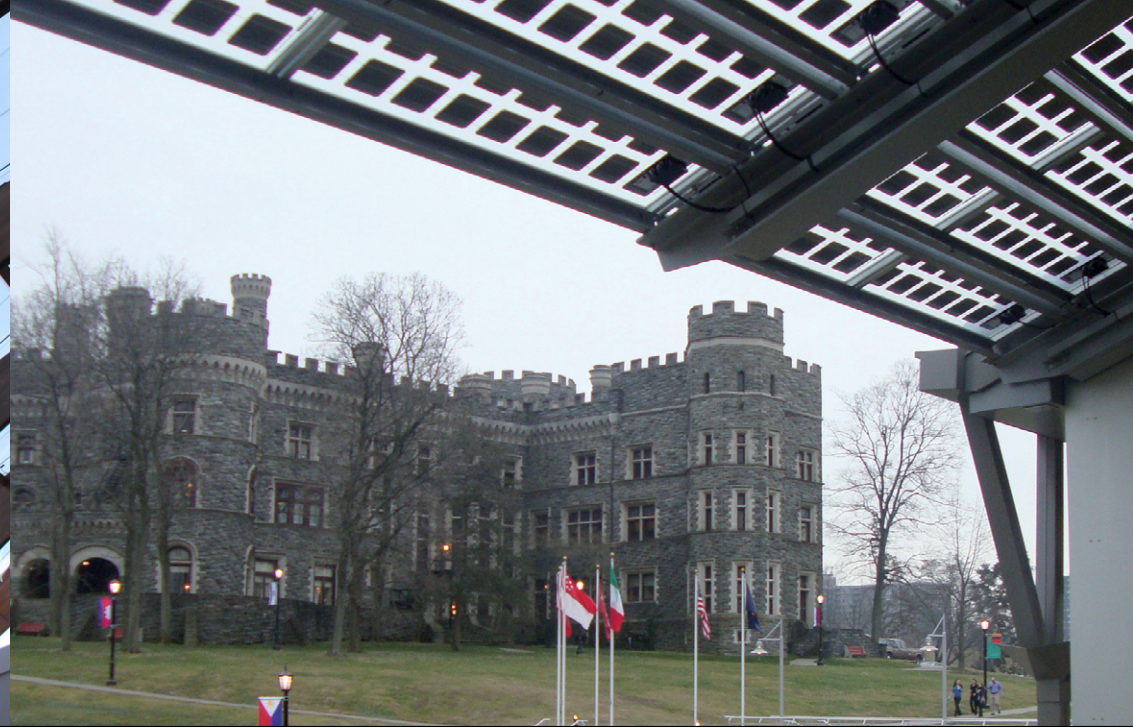
SKYLIGHT

WALKABLE FLOOR

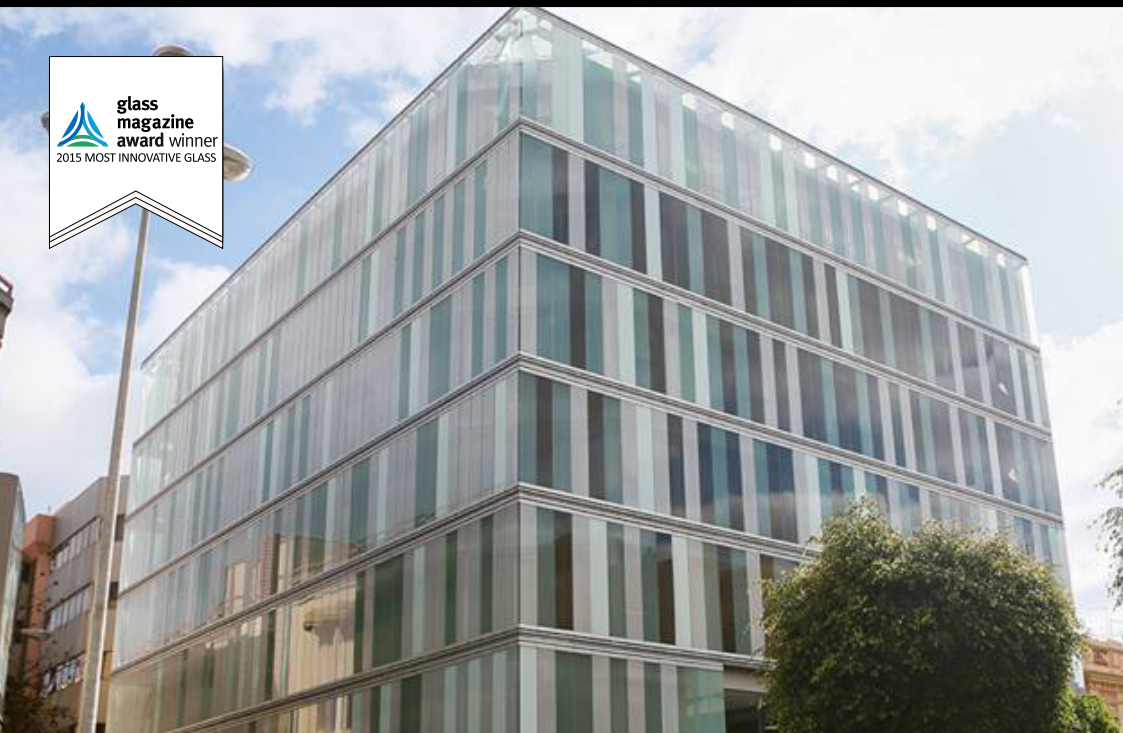




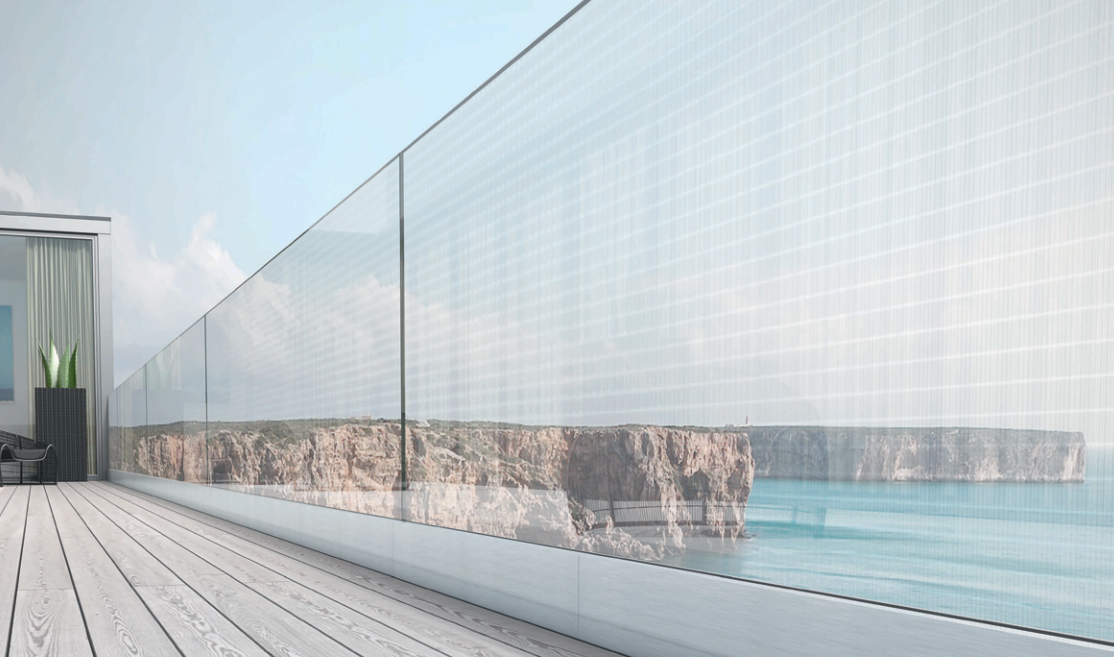
CANOPY



BRISE SOLEIL



glass
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2015 MOST INNOVATIVE GLASS



BALUSTRADE



ELEVATOR



PARKING LOT



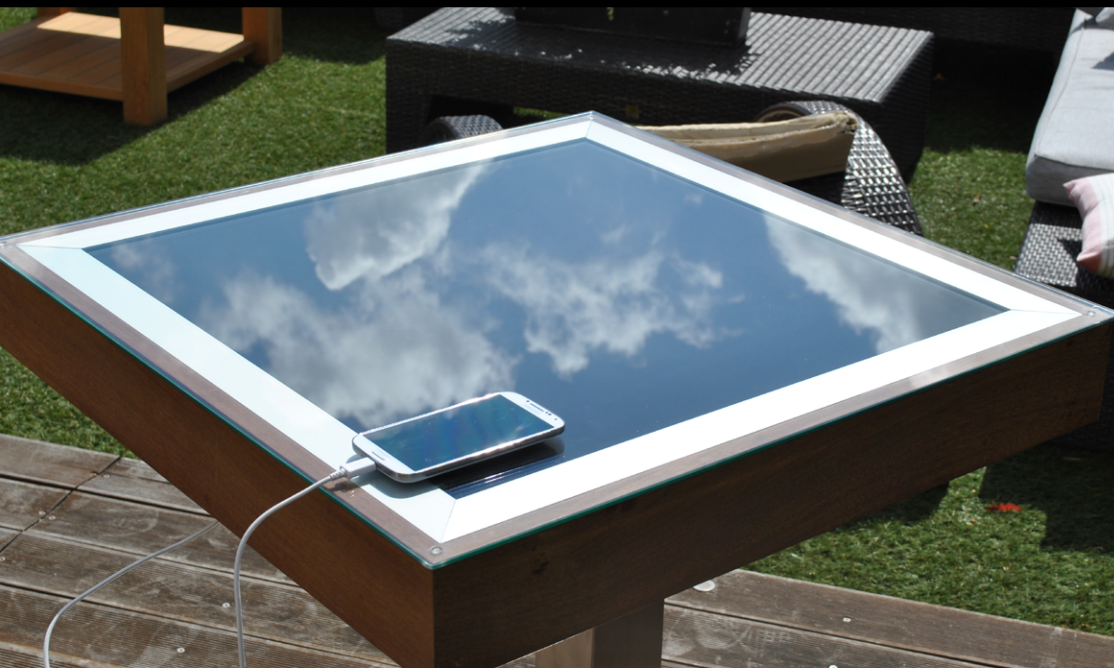
WALKWAY



SPANDREL



BACKYARD WALL



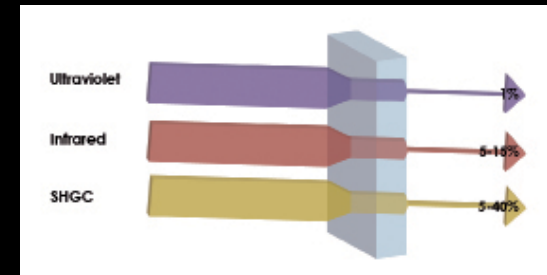
OUTDOOR FURNITURE



MULTIFUNCTIONAL BIOCLIMATIC PROPERTIES

- | | | |
|---|----------------------------------|--|
| 1 | ENERGY GENERATION | |
| 2 | FILTRO UV & IR | |
| 3 | THERMAL & ACOUSTIC INSULATION | |
| 4 | NATURAL ILLUMINATION | |
| 5 | INNOVATIVE DESIGN | |
| 6 | REDUCE CO ₂ EMISSIONS | |

LOW-E PHOTOVOLTAIC GLASS



Onyx Solar® has developed the first Low-e Photovoltaic Glass, awarded by the National Glass Association of USA, as the Most Innovative Glass of 2015. Surpassing the properties of the conventional glass, it is capable of generating green energy as well as providing thermal insulation.

Furthermore, the Low-e Photovoltaic Glass also filters harmful solar radiations, up to 99% of ultraviolet radiation and up to 95% of infrared radiation. It prevents adversary impact on the inhabitants, furniture, and interior space. Similarly, the lower SHGC (Solar Heat Gain Coefficient) of the glass will help maintain optimal indoor temperature, resulting in significant savings on HVAC and thereby also reducing the carbon footprint.

For more information, please consult "Low-e Photovoltaic Glass Technical Guide" on our website in the All You Need section.

NEW



PHOTOVOLTAIC ESTIMATION AND RETURN ON INVESTMENT FOR A DEMO BUILDING



Onyx Solar's new app "Photovoltaic Estimation and Return on Investment" is now available for free on Onyx Solar® website, Apple Store, and Play Store.

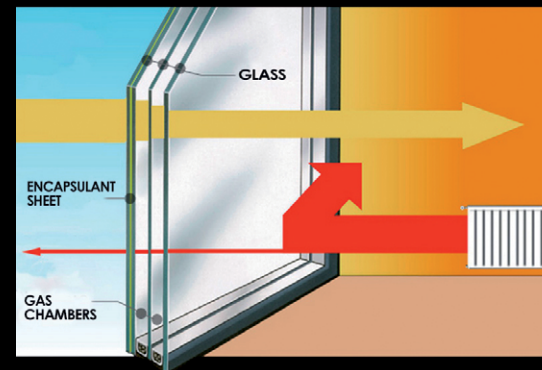
A new feature on the app provides a sample Feasibility Study which shows the economic advantages of using photovoltaic insulation glass of Onyx Solar® over a traditional one for a building. Additional features include return on investment, average reduction in HVAC energy demand, total solar electricity generated, and the cost of kWh by using Onyx Solar® photovoltaic glass.

The new app also allows you to calculate annual energy generation from our photovoltaic system and its equivalence in avoided CO₂ emissions, number of supported light fixtures, barrels of fuel saved, and even the distance traveled by an electric vehicle.



WEB

U-VALUE TOOL

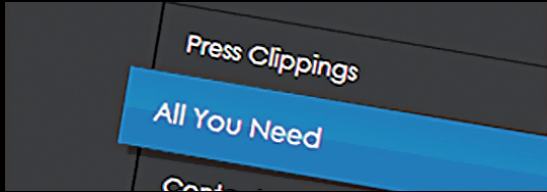


Onyx Solar® has developed a tool that allows you to calculate the u-value (or thermal transmittance) of a photovoltaic glass system, which offers a U-value as low as 0,74 W/m²K (0,13 BTU/hft² °F). This magnitude is important because it indicates the amount of heat that can be transmitted through a glass system. As a result, it relates directly to energy efficiency. The lower the U-value indicates greater thermal insulation and thus greater efficiency.

In order to calculate the u-value, you must have the configuration on the glass such as the number and thicknesses of each single glass sheet that makes up a unit of glass. It also requires information on the spacer if there is any and the polymer sheets should the glass unit needs to be laminated.



ALL YOU NEED



Please visit the ALL YOU NEED section available on our website. It provides all the information needed to understand and improve the knowledge about our technology and projects, in order to facilitate the specification, prescription and installation of our photovoltaic glass in your projects.



PHOTOVOLTAIC GLASS BIPV
SKYLIGHT GREEN BUILDING SUSTAINABILITY CLEAN ENERGY FROM THE SUN BIPV SKYLIGHT DESIGN
ARCHITECTURE BUILDING PHOTovoltaic WALKABLE ROOF INNOVATION TECHNOLOGY GENERATION ONYX SOLAR SUSTAINABILITY PHOTOVOLTAIC GLASS
BIM ARCHITECTURE LEED CERTIFICATION WALKABLE ROOF DESIGN INNOVATION ECOTEC REWIT SIMULATION ANALYSIS ROOF BIM BIMPV SUSTAINABLE PROJECTS
CANOPY



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2016 GLOBAL LEADER
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SUSTAINABLE BUILDING AWARDS 2016
BUILD
2016 BEST GLOBAL PHOTOVOLTAIC GLASS PROVIDER



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100% recycled



EUROPEAN UNION
European Regional Development Fund
Investing in your future