FEASIBILITY STUDIES

DISCOVER DIFFERENT CONSTRUCTIVE SOLUTIONS IN CYPRUS

FEASIBILITY STUDY NICOSIA

HIDDEN PV IN WHITE COLOR

- INTENSE GREEN 100 W/M²
- WHITE 110 W/M²
- MARBLE BROWN 115 W/M²
- **DEEP BLUE** 160 W/M²

CHARACTERISTICS OF THE GLASS

Peak Power (Wp/m²)	110 Wp per m²
Visible light transmittance	0%

ENVIRONMENTAL BENEFITS NICOSIA

Renewable energy	3.064 KWh per m²
Kg of CO_2 avoided	2.074 Kg per m²
Kilometres driven in an electric car	17.618 Km per m²
Light points fed	6 per m²/day

ECONOMIC BENEFITS NICOSIA*

Value of the renewable energy	506 € per m²
Return on investment	3,31 times
Internal rate of return (IRR)	8,40%
Payback time	12 years
Building's value increase**	358 € per m²

DATA CONSIDERED FOR CALCULATIONS

Tilt: 90°

Orientation: S

ENERGY LOSSES PER ORIENTATION

PV FAÇADE / BALCONY

CYPRUS

CRYSTALLINE SILICON TECHNOLOGY

PV ESTIMATION TOOL

Calculate the energy produced in any location.

Onyx facilitates obtaining recognized sustainability certifications for buildings like LEED or BREEAM.

We plant one tree for every m² of PV glass we produce. Each tree absorbs an average of 10 Kg of CO2 per year.

Data Calculated for a 35-year useful life.

* The prices considered are merely indicative and may vary depending on the installed glass surface. The data provided in this feasibility study in no case involves a contractual obligation.

** According to the US Department of Energy & Environment a sustainable building will obtain an increase of value between 10 and 20 USD for every USD generated by renewable energy.

FEASIBILITY STUDY NICOSIA

HIDDEN PV IN WHITE COLOR

- INTENSE GREEN 100 W/M²
- WHITE 110 W/M²
- MARBLE BROWN 115 W/M²
- **DEEP BLUE** 160 W/M²

CHARACTERISTICS OF THE GLASS

Peak Power (Wp/m²)	110 Wp per m²
Visible light transmittance	0%

ENVIRONMENTAL BENEFITS NICOSIA

Renewable energy	5.172 KWh per m²
Kg of CO_2 avoided	3.501 Kg per m²
Kilometres driven in an electric car	29.740 Km per m²
Light points fed	10 per m²/day

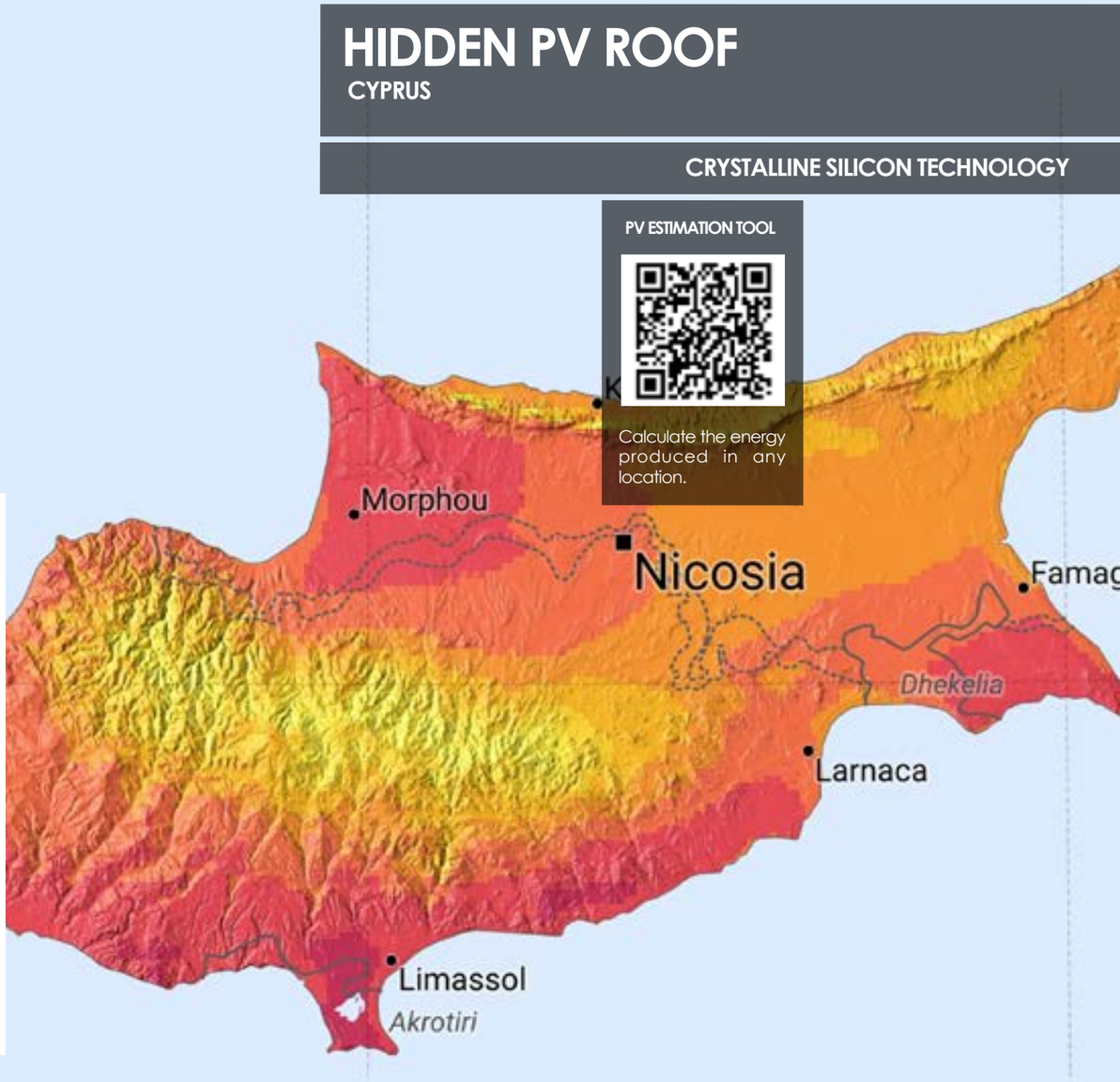
ECONOMIC BENEFITS NICOSIA*

Value of the renewable energy	1.098 € per m²
Return on investment	10 times
Internal rate of return (IRR)	24,91%
Payback time	5 years
Building's value increase**	605 € per m²

HIDDEN PV ROOF

CYPRUS

CRYSTALLINE SILICON TECHNOLOGY



DATA CONSIDERED FOR CALCULATIONS:

Tilt: 30°

Orientation: S

ENERGY LOSSES PER ORIENTATION

-18% -39% -18%

Onyx facilitates obtaining recognized sustainability certifications for buildings like LEED or BREEAM.

We plant one tree for every m² of PV glass we produce. Each tree absorbs an average of 10 Kg of CO2 per year.

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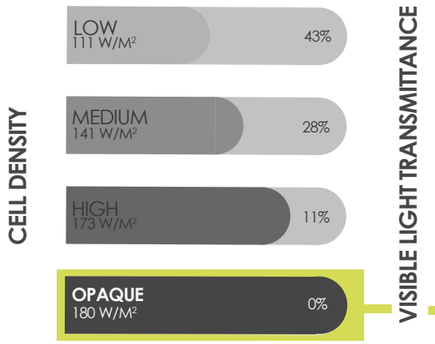
FEASIBILITY STUDY NICOSIA

OPAQUE PV GLASS



CHARACTERISTICS OF THE GLASS

Peak Power (Wp/m²)	180 Wp per m²
Visible light transmittance	0%

ENVIRONMENTAL BENEFITS NICOSIA

Renewable energy	5.014 KWh per m²
Kg of CO_2 avoided	3.394 Kg per m²
Kilometres driven in an electric car	28.830 Km per m²
Light points fed	9,85 per m²/day

ECONOMIC BENEFITS NICOSIA*

Value of the renewable energy	1.038 € per m²
Return on investment	8 times
Internal rate of return (IRR)	20,55 %
Payback time	0 years
Building's value increase**	286 € per m²

PV DOUBLE SKIN / SPANDREL

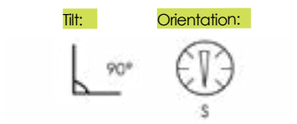
CYPRUS

CRYSTALLINE SILICON TECHNOLOGY

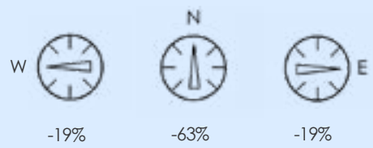
PV ESTIMATION TOOL

Calculate the energy produced in any location.

DATA CONSIDERED FOR CALCULATIONS



ENERGY LOSSES PER ORIENTATION



Onyx facilitates obtaining recognized sustainability certifications for buildings like LEED or BREEAM.

We plant one tree for every m² of PV glass we produce. Each tree absorbs an average of 10 Kg of CO2 per year.

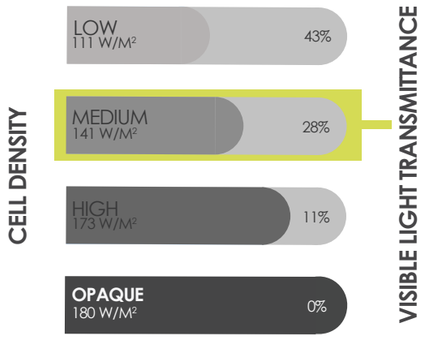
Data Calculated for a 35-year useful life.

* The prices considered are merely indicative and may vary depending on the installed glass surface. The data provided in this feasibility study in no case involves a contractual obligation.

** According to the US Department of Energy & Environment a sustainable building will obtain an increase of value between 10 and 20 USD for every USD generated by renewable energy.

FEASIBILITY STUDY NICOSIA

MEDIUM CELL DENSITY PV GLASS



CHARACTERISTICS OF THE GLASS

Peak Power (Wp/m²)	141 Wp per m²
Visible light transmittance	28%

ENVIRONMENTAL BENEFITS NICOSIA

Renewable energy	3.927 KWh per m²
Kg of CO_2 avoided	2.659 Kg per m²
Kilometres driven in an electric car	22.584 Km per m²
Light points fed	7,72 per m²/day

ECONOMIC BENEFITS NICOSIA*

Value of the renewable energy	736 € per m²
Return on investment	4,8 times
Internal rate of return (IRR)	12,49 %
Payback time	8 years
Building's value increase**	459 € per m²

DATA CONSIDERED FOR CALCULATIONS

PV CURTAIN WALL

CYPRUS

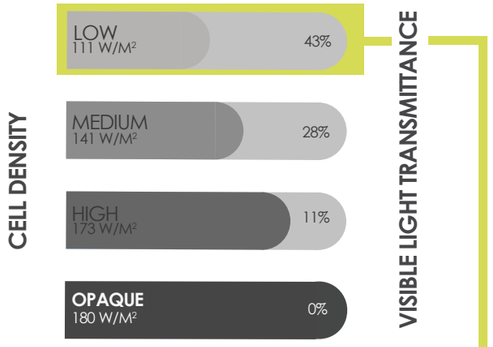
CRYSTALLINE SILICON TECHNOLOGY

ENERGY LOSSES PER ORIENTATION

Onyx facilitates obtaining recognized sustainability certifications for buildings like LEED or BREEAM.

FEASIBILITY STUDY NICOSIA

LOW CELL DENSITY PV GLASS



CHARACTERISTICS OF THE GLASS

Peak Power (Wp/m²)	111 Wp per m²
Visible light transmittance	43%

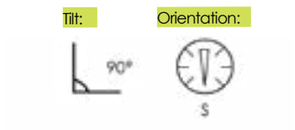
ENVIRONMENTAL BENEFITS NICOSIA

Renewable energy	3.092 KWh per m²
Kg of CO_2 avoided	2.093 Kg per m²
Kilometres driven in an electric car	17.779 Km per m²
Light points fed	6 per m²/day

ECONOMIC BENEFITS NICOSIA*

Value of the renewable energy	565 € per m²
Return on investment	4,39 times
Internal rate of return (IRR)	11,40 %
Payback time	12 years
Building's value increase**	261 € per m²

DATA CONSIDERED FOR CALCULATIONS

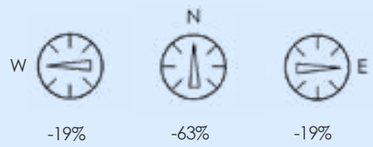


PV BALUSTRADE / BALCONY

CYPRUS

CRYSTALLINE SILICON TECHNOLOGY

ENERGY LOSSES PER ORIENTATION



Onyx facilitates obtaining recognized sustainability certifications for buildings like LEED or BREEAM.

We plant one tree for every m² of PV glass we produce. Each tree absorbs an average of 10 Kg of CO2 per year.

Data Calculated for a 35-year useful life.

* The prices considered are merely indicative and may vary depending on the installed glass surface. The data provided in this feasibility study in no case involves a contractual obligation.

** According to the US Department of Energy & Environment a sustainable building will obtain an increase of value between 10 and 20 USD for every USD generated by renewable energy.

FEASIBILITY STUDY NICOSIA

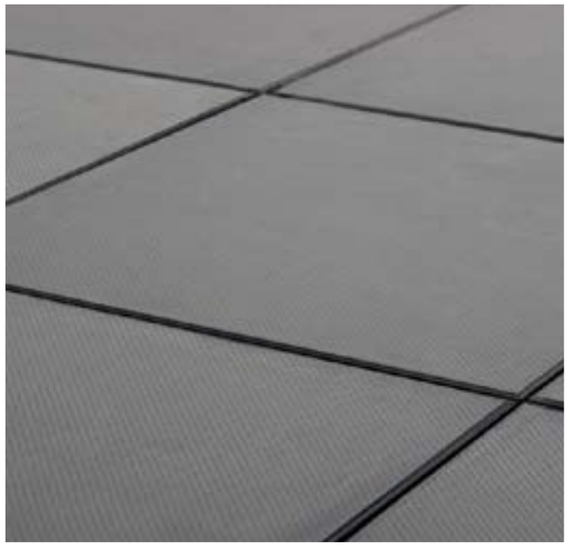
OPAQUE PV GLASS

CELL DENSITY

- LOW 111 W/M²
- MEDIUM 141 W/M²
- HIGH 173 W/M²
- **OPAQUE** 180 W/M²

CHARACTERISTICS OF THE GLASS

Peak Power (Wp/m²)	140 Wp per m²
Visible light transmittance	0%



ENVIRONMENTAL BENEFITS NICOSIA

Renewable energy	7.512 KWh per m²
Kg of CO_2 avoided	5.086 Kg per m²
Kilometres driven in an electric car	43.198 Km per m²
Light points fed	14,76 per m²/day

ECONOMIC BENEFITS NICOSIA*

Value of the renewable energy	1.481 € per m²
Return on investment	6 times
Internal rate of return (IRR)	15,57%
Payback time	7 years
Building's value increase**	878 € per m²

DATA CONSIDERED FOR CALCULATIONS

Tilt: 0°

Orientation: S

ENERGY LOSSES PER ORIENTATION

0° 0° 0°

WALKABLE PV FLOOR

CYPRUS

CRYSTALLINE SILICON TECHNOLOGY

Onyx facilitates obtaining recognized sustainability certifications for buildings like LEED or BREEAM.

We plant one tree for every m² of PV glass we produce. Each tree absorbs an average of 10 Kg of CO2 per year.

Data Calculated for a 35-year useful life.

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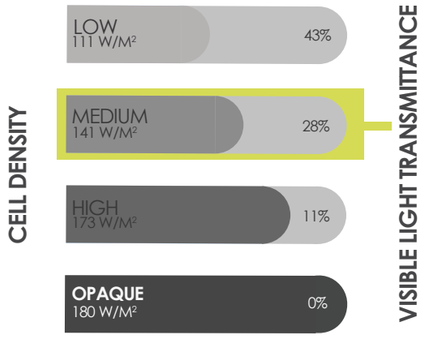
FEASIBILITY STUDY NICOSIA

MEDIUM CELL DENSITY PV GLASS



CHARACTERISTICS OF THE GLASS

Peak Power (Wp/m²)	141 Wp per m²
Visible light transmittance	28%

ENVIRONMENTAL BENEFITS NICOSIA

Renewable energy	6.629 KWh per m²
Kg of CO_2 avoided	4.888 Kg per m²
Kilometres driven in an electric car	38.121 Km per m²
Light points fed	13,03 per m²/day

ECONOMIC BENEFITS NICOSIA*

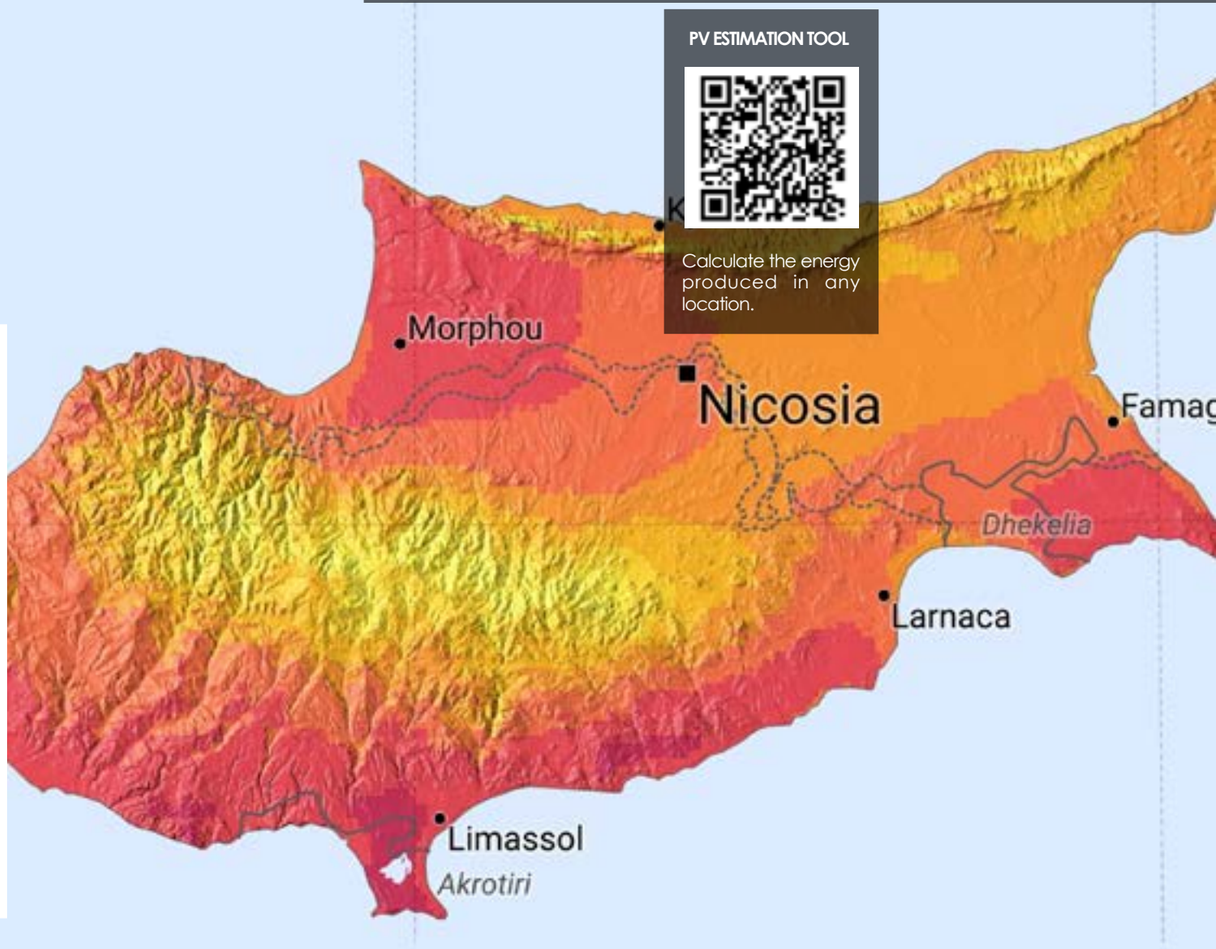
Value of the renewable energy	1.434 € per m²
Return on investment	11,57 times
Internal rate of return (IRR)	29,51%
Payback time	4 years
Building's value increase**	775 € per m²

DATA CONSIDERED FOR CALCULATIONS

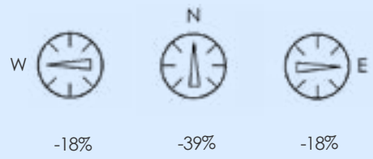
PV SKYLIGHT

CYPRUS

CRYSTALLINE SILICON TECHNOLOGY



ENERGY LOSSES PER ORIENTATION



Onyx facilitates obtaining recognized sustainability certifications for buildings like LEED or BREEAM.

We plant one tree for every m² of PV glass we produce. Each tree absorbs an average of 10 Kg of CO2 per year.

Data Calculated for a 35-year useful life.

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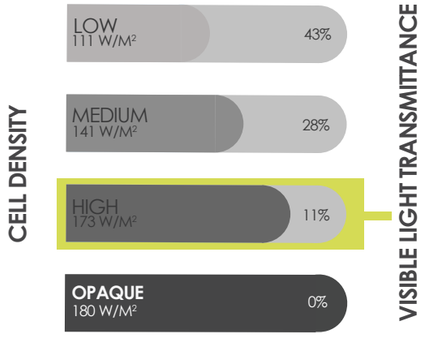
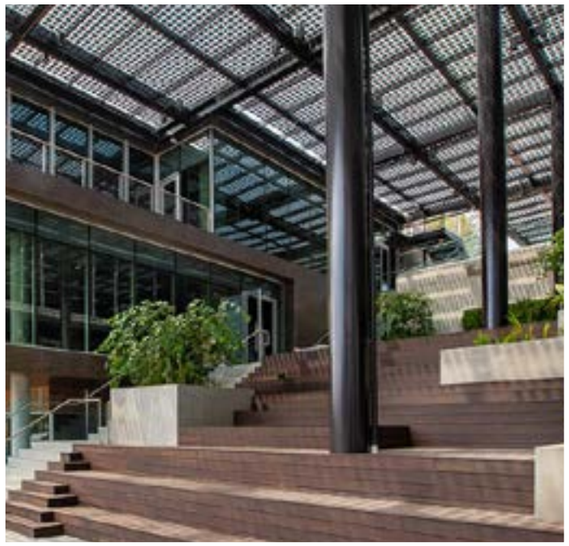
FEASIBILITY STUDY NICOSIA

HIGH CELL DENSITY



CHARACTERISTICS OF THE GLASS

Peak Power (Wp/m²)	173 Wp per m²
Visible light transmittance	11%



ENVIRONMENTAL BENEFITS NICOSIA

Renewable energy	3.967 KWh per m²
Kg of CO_2 avoided	3.067 Kg per m²
Kilometres driven in an electric car	22.814 Km per m²
Light points fed	7,80 per m²/day

ECONOMIC BENEFITS NICOSIA*

Value of the renewable energy	1.564 € per m²
Return on investment	11,8 times
Internal rate of return (IRR)	30 %
Payback time	4 years
Building's value increase**	844 € per m²

Tilt: 0°

Orientation: S

PV CANOPY

CYPRUS

CRYSTALLINE SILICON TECHNOLOGY

ENERGY LOSSES PER ORIENTATION

Onyx facilitates obtaining recognized sustainability certifications for buildings like LEED or BREEAM.

We plant one tree for every m² of PV glass we produce. Each tree absorbs an average of 10 Kg of CO2 per year.

Data Calculated for a 35-year useful life.

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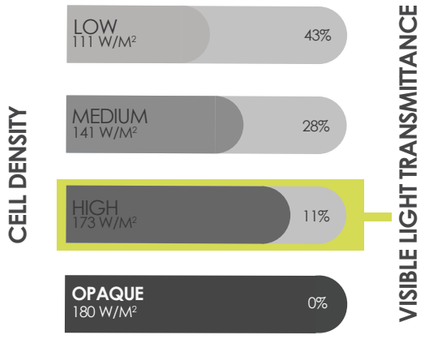
FEASIBILITY STUDY NICOSIA

HIGH CELL DENSITY PV GLASS



CHARACTERISTICS OF THE GLASS

Peak Power (Wp/m²)	173 Wp per m²
Visible light transmittance	11%

ENVIRONMENTAL BENEFITS NICOSIA

Renewable energy	8.134 KWh per m²
Kg of CO_2 avoided	5.507 Kg per m²
Kilometres driven in an electric car	46.773 Km per m²
Light points fed	16 per m²/day

ECONOMIC BENEFITS NICOSIA*

Value of the renewable energy	1.781 € per m²
Return on investment	13,3 times
Internal rate of return (IRR)	33,78%
Payback time	4 years
Building's value increase**	951 € per m²

DATA CONSIDERED FOR CALCULATIONS

Tilt:

Orientation:

PV BRISE SOLEIL

CYPRUS

CRYSTALLINE SILICON TECHNOLOGY

ENERGY LOSSES PER ORIENTATION

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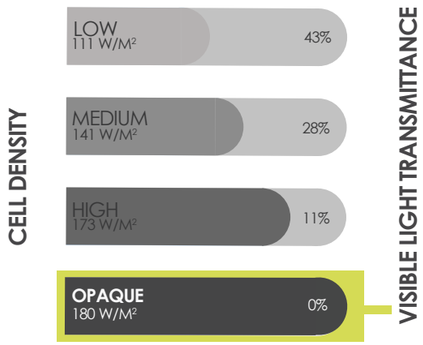
FEASIBILITY STUDY NICOSIA

OPAQUE PV GLASS



CHARACTERISTICS OF THE GLASS

Peak Power (Wp/m²)	180 Wp per m²
Visible light transmittance	0%

ENVIRONMENTAL BENEFITS NICOSIA

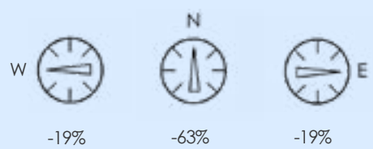
Renewable energy	5.014 KWh per m²
Kg of CO_2 avoided	3.394 Kg per m²
Kilometres driven in an electric car	28.830 Km per m²
Light points fed	9,85 per m²/day

ECONOMIC BENEFITS NICOSIA*

Value of the renewable energy	1.065 € per m²
Return on investment	9,73 times
Internal rate of return (IRR)	25 %
Payback time	5 years
Building's value increase**	586 € per m²

DATA CONSIDERED FOR CALCULATIONS

ENERGY LOSSES PER ORIENTATION



PV NOISE BARRIER

CYPRUS

CRYSTALLINE SILICON TECHNOLOGY

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GLOBAL EPD

SCAN THE QR TO DOWNLOAD OUR EPD

GlobalEPD
A VERIFIED ENVIRONMENTAL DECLARATION

ECO PLATFORM EPD VERIFIED

Environmental Product Declaration

EN ISO 14025:2010
EN 15804:2012+A2:2019

AENOR

CRYSTALLINE PHOTOVOLTAIC SOLAR GLASS

G/GM07244
G/GM07211
G/GM03644
G/GM01688A

First publication date: 31-01-2024
Expiry date: 30-01-2029

The declared validity is to registration and publication on www.aenor.com

GlobalEPD Code: GlobalEPD EN15804-063

The Environmental Product Declaration (EPD) is a certified document that provides our clients with reliable, verified, and transparent information regarding the environmental impact throughout the life cycle of a product. This information is based on a **Life Cycle Analysis (LCA)** study conducted in accordance with the Product Category Rules (PCR) developed by the Eco-labeling Program. In our specific case, the study has been carried out under the **Product Category Rule for Construction Products UNE EN 15804:2012+A2.**

ECO PLATFORM & AENOR

ECO Platform is a European Association made up of DAP Verification Program Administrators, industrial associations, and life cycle analysis experts, which guarantees the quality and conformity of environmental declarations of construction products in accordance with ISO 14025 and EN 15084 Standards. ECO Platform represents a common pan-European framework for DAPs. The Programs commit to common quality and verification criteria, which are regularly audited.

AENOR is a founding member of ECO Platform and passed audits in 2014 to issue Environmental Declarations with the ECO Platform EPD EN 15804 VERIFIED™ logo, being one of the first four European Administrators along with International EPD System (Sweden), IBU (Germany) and BAU EPD (Austria).


» ISRAEL


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» EEUU


» DUBAI


» FRANCIA


» ESLOVAQUIA


» ESPAÑA


» ESPAÑA


» ARABIA SAUDITA


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» PAÍSES BAJOS

» EEUU

» ESPAÑA

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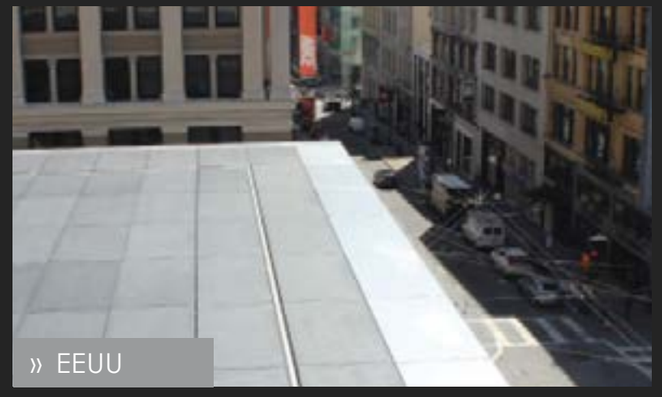
» DUBAI

» DINAMARCA



» EEUU

» EEUU

» EEUU

Scan this QR code to acces our catalog.

UNLOCKING THE POWER OF PHOTOVOLTAIC GLASS:

Are you curious about the potential of photovoltaic (PV) glass for your project? Our team at Onyx Solar is here to guide you through the process and help you harness the benefits of this innovative technology.

WHAT DOES PV GLASS BRING TO YOUR PROJECT?

✓ **Energy Generation:** PV glass generates clean electricity from sunlight, reducing your reliance on traditional power sources.

✓ **Aesthetic Integration:** Say goodbye to bulky solar panels! PV glass blends seamlessly with architectural designs, enhancing the visual appeal of your building.

✓ **Environmental Impact:** By using PV glass, you contribute to reducing carbon emissions. Imagine the positive impact on our planet!

HOW ONYX SOLAR CAN ASSIST YOU

Our technical team offers free feasibility studies tailored to your project. Here's what we provide:

·**Product Datasheets:** Detailed information about our PV glass products, including technical specifications.

·**Shop Drawings:** Visual representations to aid in your design process.

·**Energy Estimates:** Understand the potential energy output based on your installation.

·**CO_2 Emissions Prevented:** Quantify the environmental benefits of using PV glass.

·**Cost Analysis:** Get a clear picture of the investment required.

·**Payback and ROI:** Evaluate the financial returns over time.

·**Tax Credits and Incentives:** Explore available incentives to make an informed decision.

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