



bipv korea

**Building
Integrated
Photovoltaic
System**

BEAUTIFULLY SUSTAINABLE

SUSTAINABLE TECHNOLOGY

DOUBLE LAYERED TEMPERED GLASS

90% BIPV Solutions are based on a “**Double Layer**” of Tempered Glass, which adds added strength, performance and safety to the final solution provided. Sandwiched between the two layers of glass are layers of Solar Cells and PVB, **Poly Vinyl Butyral**, a tough plastic resin that is used in between two panes of glass to bond them together.

TWO TYPES OF SOLAR CELLS UTILISED

Currently, BIPV Korea use both **CIGS** (copper indium gallium selenide) and **MC** (MonoCrystalline) Solar cells to manufacture their panels. Both have their benefits listed below...

CIGS

- Very flexible, therefore more durable.
- 30%-40% more receptive to the sun, so where traditional panels will generate on average 4-hours a day, CIGS can produce in some cases, 6-7 hours a day, as they will generate even when cloudy.
- Don't have to angle the panels, so excellent for cladding.
- Only available in “Standard Sizes”.

MC CELLS

- Can be used to produce all the “Customized” panels.
- They can lose up to 30% on vertical installation.
- Will retain a minimum of 4hrs sun a day.
- They are more economical than **CIGS** Panels.

BIPV PRODUCTS

HANTILE

CIGS FLEX

CIGS POWER GLASS

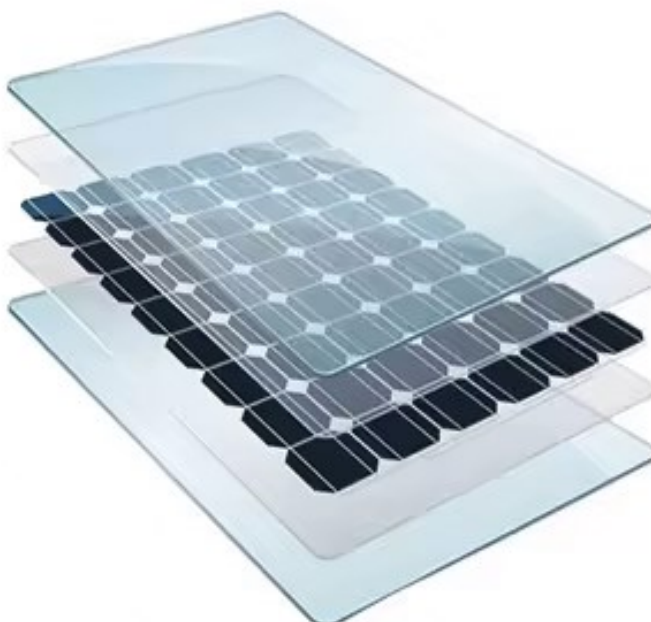
HANWALL

MC PRODUCTS

SOLWALL

SOLTILE SOLAR WINDOWS

POSSOLAR



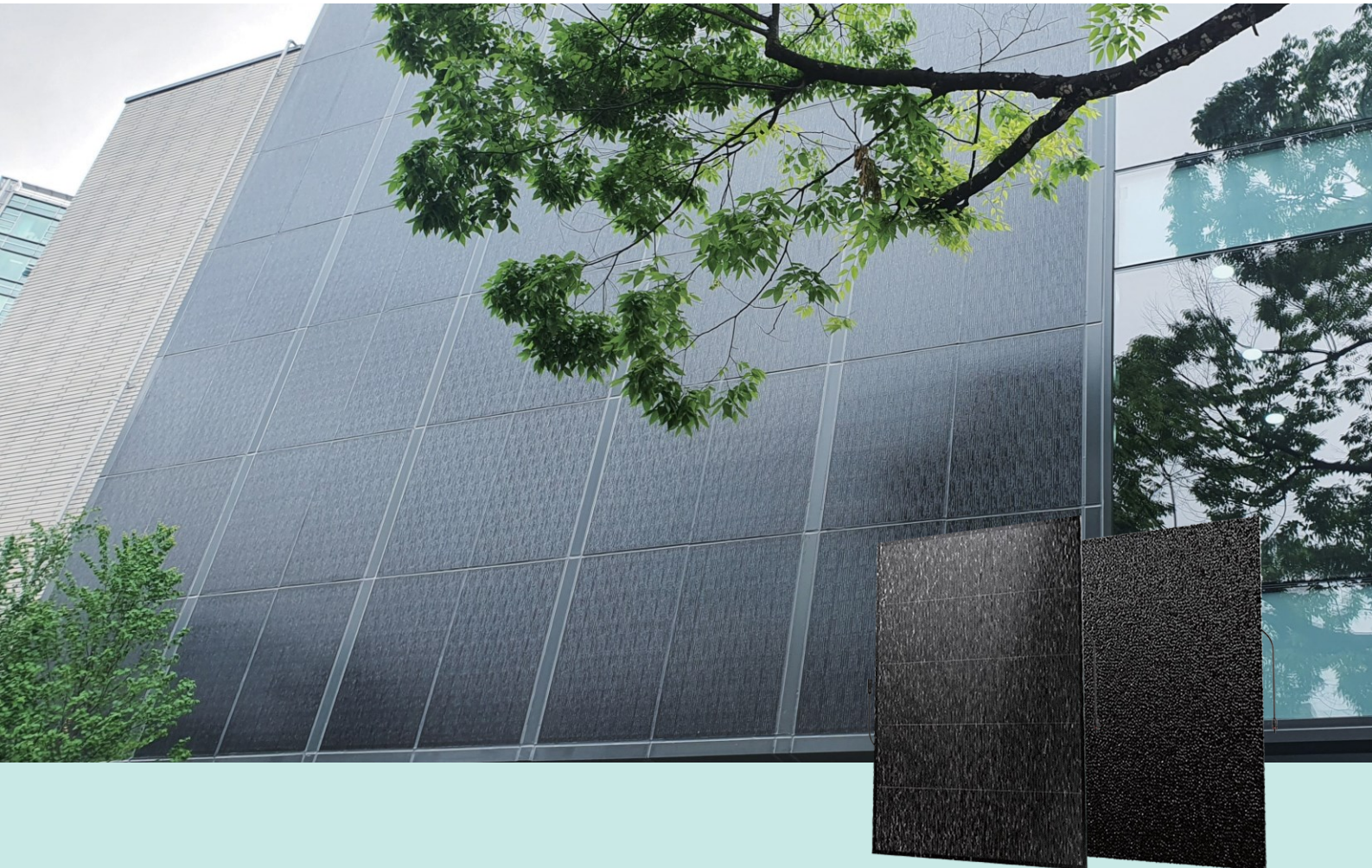
CONSTRUCTION

- Tempered Glass
- PVB Printed Layer
- Solar Cells
- PVB Layer
- Tempered Glass



SOLWALL

Creating a New Style of Building Landmarks



Features

- Wall-integrated photovoltaic module
- Customized production based on design drawings
- Module surface pattern technology that solves light reflection (glare) pollution in the city center (patent registration)
- Improving power generation performance by scattering light due to patterning of module surfaces
- Easy construction, durability, earthquake resistance and easy maintenance

Specifications

Power Output	328W
Efficiency	19.4%
Length	1612mm
Width	1050mm
Thickness	6mm
Weight	28kg



SOLTILE

Creating a New Type of Solar Roofing

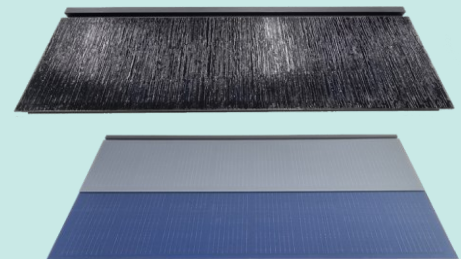
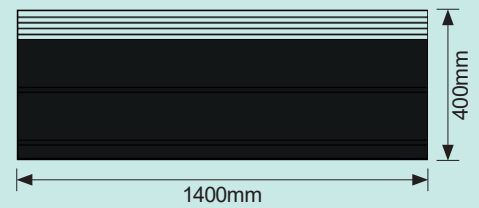
Features

- Roof-integrated photovoltaic module (Patent Registration No. 10-2490041)
- Customizable by design drawings
- Ease of construction, durability, earthquake resistance and easy maintenance
- Finished roof and solar power without additional structures
- Improved power generation performance by scattering light due to patterning of module surfaces

Specifications

Power Output	100W	Thickness	8mm
Length	1400mm	Weight	9kg
Width	400mm	Custom made production is possible	

Technical Drawing



Black, Blue, Grey Color





POSSOLAR

Creating New Roofing Designs



Features

- No additional structure is required, as a building roof finishing material.
- Construction period is shortened because it can be constructed in one go as a building finishing material
- No additional solar construction structure is required
- As a building integrated exterior finishing material, it enhances the aesthetics of a building

Specifications

Power Output	100W
Efficiency	19.4%
Length	1646mm
Width	350mm
Thickness	6mm
Weight	9kg



CIGS Flexible Module

Lightweight & Adaptable
Solar Roofing

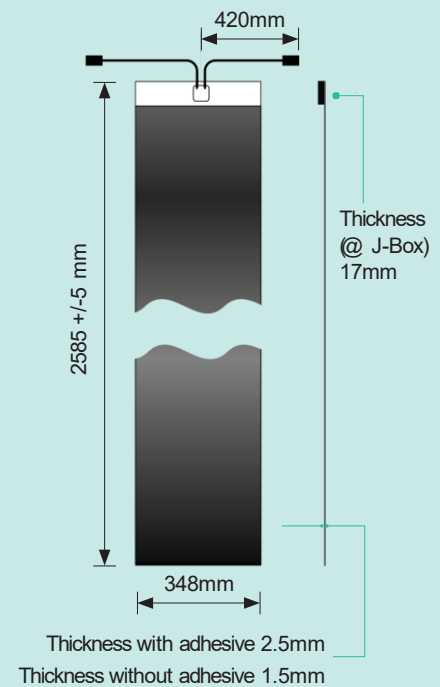
Features

- Up to 16% cell efficiency
- Installation weight less than 2.4 kg/m²
- No extra structures required for construction
- High wind resistance, earthquake resistance, durability, and easy construction

Specifications

Power Output	125W
Cell	Copper, Indium, Gallium, Diselenide(CIGS)
Length	2585mm
Width	348mm
Thickness	2.5mm
Weight	1.9kg

Technical Drawing



Flexible Thin Film

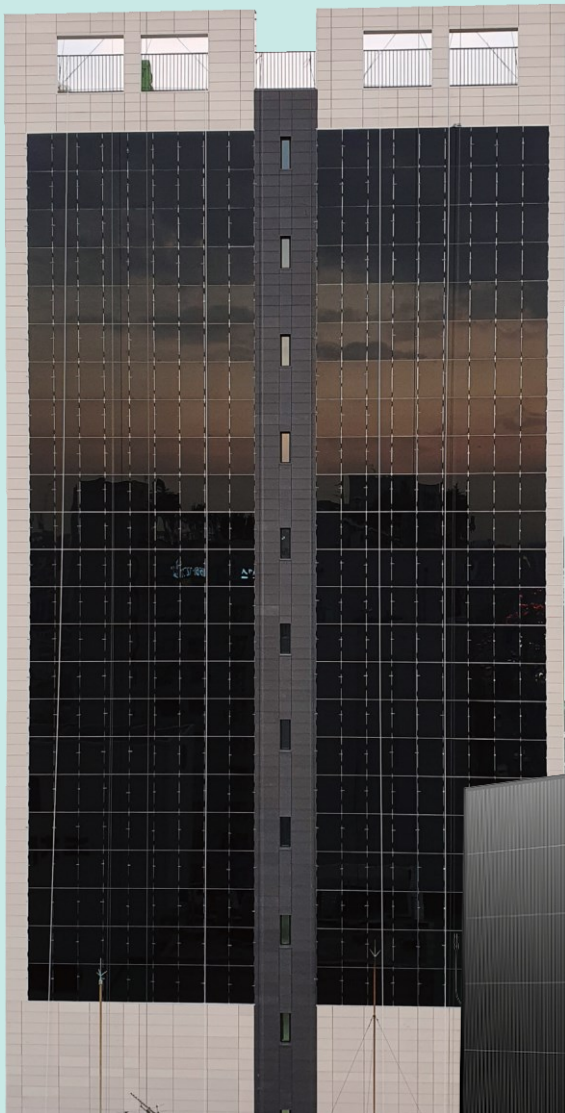


HANWALL

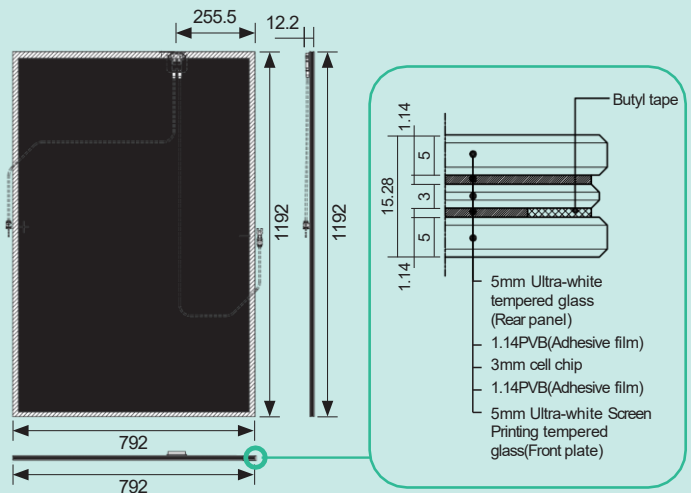
Integrating Cladding With Solar Cells

Features

- Exterior wall integrated solar curtain wall type
- High aesthetics, multiple colors
- High wind load (5,000 Pa/Sec), durability, and easy workability
- CIGS Flexible Cells are less affected by the direction and angle of the sun and shadows keeping higher power generation efficiency

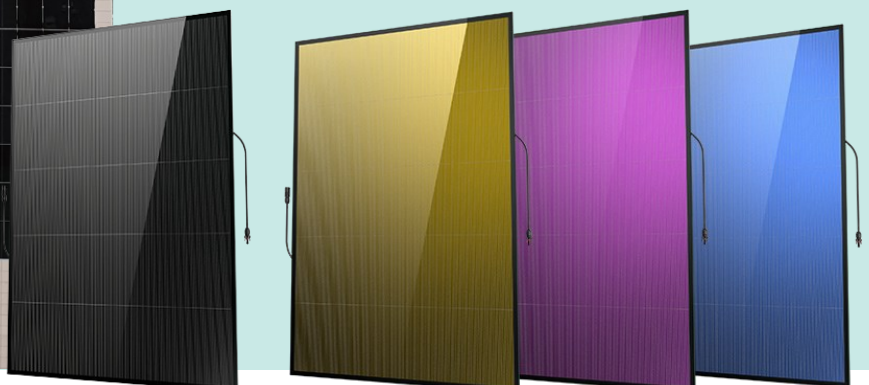


Technical Drawing



Specifications

Power Output	120W
Cell	Copper, Indium, Gallium, Selenium(CIGS)
Length	1192(±1)mm
Width	792(±1)mm
Thickness	15(±0.2)mm
Weight	33kg





HANTILE

Replacing Traditional Roofing Tiles With Solar

Features

- HANTILE combines existing roof and thin-film solar cells to harmonize with existing roof tiles.
- HANTILE realizes zero-energy architecture, minimizing the building's energy requirements and fitting in with a variety of architectural styles.
- Roof-integrated solar/traditional roof shape
- Excellent aesthetics, high wind resistance, durability, easy construction
- CIGS flexible cell

Specifications

Power Output	30W
Chip type	Copper, Indium, Gallium, Selenium(CIGS)
Dimension	721×500×41mm
Weight	9.5kg





MONO FLEX MODULE

Flexible Solar Skins For All Types of Constructions

Features

- Solderless conductive backsheet 2D encapsulation minimizes reduced performance under extreme test conditions
- Eco-friendly lead-free MWT module without soldering
- Ultra-thin silicon wafer encapsulation material, minimum bending radius 0.25m
- Light and thin design makes it more harmonious with buildings
- High wind resistance, durability, easy workability, and lightness

Specifications

Power Output	375W
Efficiency	21.8%
Length	1840mm
Width	1040mm
Thickness	2.5mm
Weight	5.7kg
Cell	126/Mono/Half cell
Frame	None
Back material	Back Sheet(white)

