

**GenVue™**  
MAKING BUILDINGS ACTIVE

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**GenVue™**  
MAKING BUILDINGS ACTIVE

**GenVue Aether**

The Transparent Solar Glass

[www.genvue.co.uk](http://www.genvue.co.uk)

## Our Product Line

01



**GenVue  
Aether  
CdTe**

02



**GenVue  
Aether  
c-Si**

03



**GenVue  
Aether  
Q Glass**

04



**GenVue  
Aether  
a-Si**

01

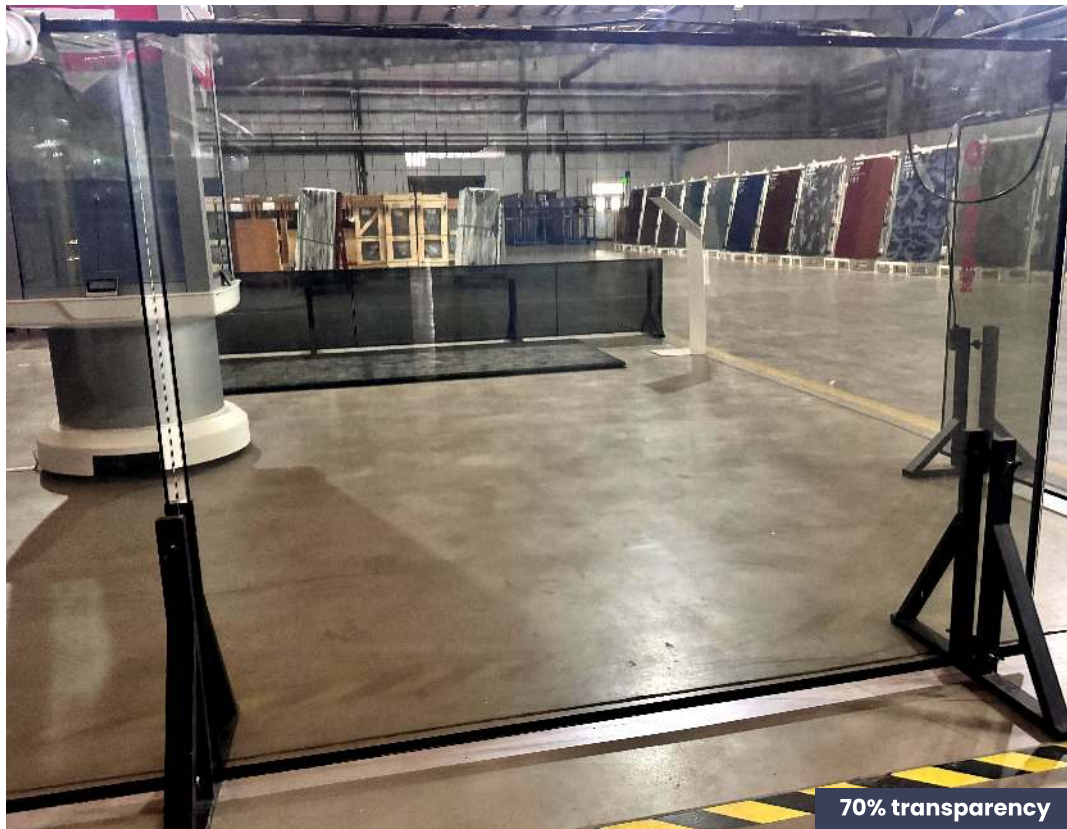
# GenVue Aether CdTe

## Sealed Insulating Power Glass

With a structure composed of Low-E + air space + CdTe laminated solar power glass and an equally refined appearance, the Low-E glass features adjustable color, adjustable air layer thickness, excellent sound insulation, thermal insulation, heat preservation, and air tightness.

Excellent thermal performance and adjustable visible light transmittance.

Conforming to green building material standards, green building subsidies can be applied according to the site occupied for projects.



70% transparency



70% transparency

# PRODUCT SPECIFICATION

| Model                          |   | Z3-V80 | Z3-V70 | Z3-V60                          | Z3-V50                       | Z3-V40 | Z3-V30 | Z3-V20 |
|--------------------------------|---|--------|--------|---------------------------------|------------------------------|--------|--------|--------|
| Transparency                   | %   | 80%    | 70%    | 60%                             | 50%                          | 40%    | 30%    | 20%    |
| Efficiency                     |   | 6%     | 8%     | 10%                             | 13%                          | 16.5%  | 20%    | 23%    |
| Nominal Power                  | Pmax (W)                                    | 60     | 80     | 100                             | 130                          | 165    | 200    | 230    |
| Maximum Power Voltage          | Vmpp (V)                                    | 129.3  | 129.3  | 129.3                           | 129.3                        | 129.3  | 129.3  | 129.3  |
| Maximum Power Current          | Impp (A)                                    | 1.67   | 1.46   | 1.25                            | 1.01                         | 1.28   | 1.55   | 1.78   |
| Open Circuit Voltage           | Voc (V)                                     | 173.8  | 173.8  | 173.8                           | 173.8                        | 173.8  | 173.8  | 173.8  |
| Short Circuit Current          | Isc (A)                                     | 1.9    | 1.66   | 1.42                            | 1.15                         | 1.46   | 1.77   | 2.03   |
| Power Tolerance                | %   | ±3     | ±3     | ±3                              | ±3                           | ±3     | ±3     | ±3     |
| Size                           | : L1600W1200D45.3mm (junction box included) |        |        | Thickness                       | : 28mm                       |        |        |        |
| Weight                         | : 75kg                                      |        |        | Front Glass                     | : 10mm laminated POWER GLASS |        |        |        |
| Air-layer Thicknesses          | : 12mm                                      |        |        | Back Glass                      | : 6mm Low-E tempered glass   |        |        |        |
| Encapsulation                  | : PVB/POE                                   |        |        | Temperature Coefficient Of Pmax | : -0.189%/°C                 |        |        |        |
| Temperature Coefficient Of Voc | : -0.396%/°C                                |        |        | Temperature Coefficient Of Isc  | : +0.061%/°C                 |        |        |        |
| Thermal Conductivity (U Value) | : 1.1W/(m²*k) for IGU                       |        |        | Shading Coefficient             | : Customizable               |        |        |        |

**STC (standard test conditions): Irradiance 1000W/m², battery temperature 25°C, air quality AM1.5**



70% transparency



70% transparency

## Genvue Aether Cdte Power Glass Supports Green And Low - Carbon Transport

Developing green and low-carbon transport is a significant action for the transport industry to strengthen the implementation of ecological civilization, facilitate the early realization of "peak carbon dioxide emission" and "carbon neutralization", and fight the uphill battle against pollution. In the 14th Five-Year Development Program for Green Transport issued by the Ministry of Communications, it is emphasized to "promote the application of new energy and create a low-carbon transport system promote the reasonable layout of photovoltaic power generation facilities along highways and in service areas according to local conditions" and "adhere to innovation-driven, strengthen scientific and technological support for green transport accelerate the studies on distributed photovoltaic power generation equipment and grid connection technology, and promote studies on green building materials and technologies". CNBMCOE has vigorously expanded its cooperation in the field of transportation, and participated in the construction of Channel L1 of Terminal T2 of Chengdu Shuangliu International Airport, Power Glass Curtain Wall Project in Jiuzhaigou Huanglong Airport and other projects.

## Chengdu Shuangliu International Airport BIPV Project

**Location :** Chengdu | **Installed capacity :** 26kW



The project is located in in the Channel Lt of Terminal T2 of Chengdu Shuangliu International Airport, it is designed as a whole with sky-blue transparent GenVue Aether CdTe power glass (First Rainbow Generation) and the marble dual-base GenVue Aether CdTe power glass (Basic Model), with the functions of beautification, sunshade and power generation: The project adopts an off-grid system, and the electricity generated by GenVue Aether CdTe power glass in used for passage lighting, vending machines and elevator shaft operation, helping Shuangliu International Airport to realize the purpose of energy conservation and emission reduction and faster the mege of Chengdu as a "park city".



## Jiuzhai Huanglong Airport BIPV Project

**Location :** Aba

**Installed capacity :** 86kW

**Altitude :** 3447.65 meter

This project is the first to mount hollow GenVue Aether CdTe power glass to combine the sound insulation and thermal insulation of conventional hollow glass with the advantages of high photoelectric conversion rate and high power generation under weak light of GenVue Aether CdTe power glass. GenVue Aether CdTe power glass is highly applicable to plateau airports with harsh natural conditions, solving the dual problems of energy supply and materials required for expansion works at the same time. Its thermal insulation, heat preservation and high strength meet the strict requirements of Plateau airport for building materials. High power generation under weak light not only can provide stable and continuous power supply to the airport, but also reduces the huge cost arising from remote power transmission from the power grid. After the project is completed, it plays a very good demonstration effect, and the staff of many domestic airports visits it for study.

# Sci-Tech Innovation Base of Sci-Tech Innovation Port of Xi'an Jiaotong University

**Location :** Xi'an | **Installed capacity :** 285kWp | **Type :** BIPV



LOW-E hollow transparent GenVue Aether CdTe power glass is applied in this project, satisfying the energy-saving requirements of the glass curtain wall in terms of thermal insulation and sunshade, as well as the aesthetic requirements of uniform appearance and transparent vision while actively generating clean energy.



## GenVue Aether CdTe Power Glass Transparent Curtain Wall



External view



Inside view

### Nanjing Big Data Center Bipv Project

**Location :** Nanjing

**Type :** BIPV

### GenVue Aether CdTe Power Glass Sunlight Corridor

**Location :** Changsha

**Type :** BIPV

02

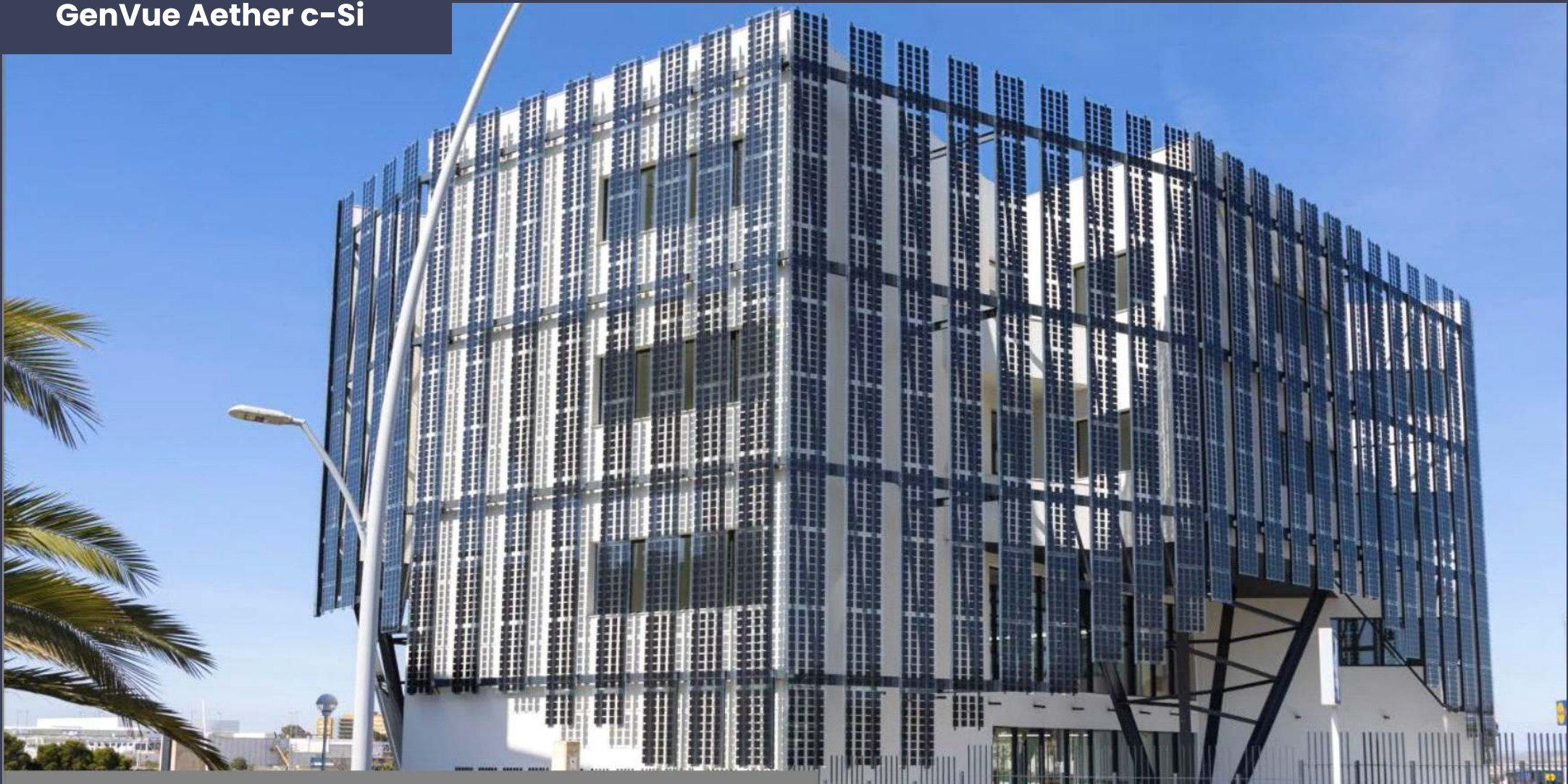
# GenVue Aether c-Si

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## Crystalline Silicon

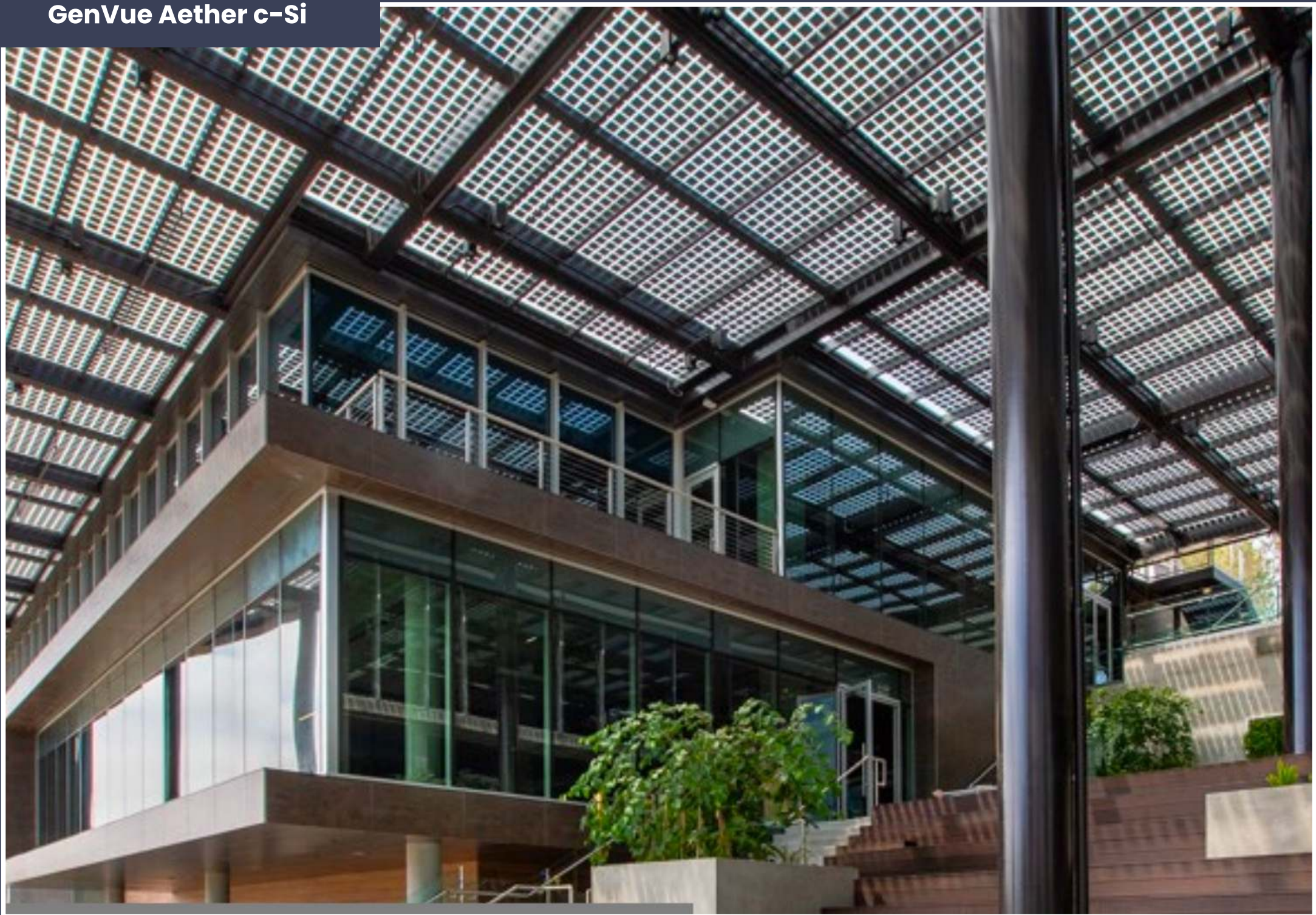
- Mono and Polycrystalline
- Square solar cells with a dimension 5" or 6"
- Efficiency 12% - 20%
- Greater nominal power per square meter ( $Wp/m$ )
- Produces more electricity under direct sunlight
- Flexibility in functional design - trapezoids





**Crystalline Silicon  
Photovoltaic Double Skin**

GenVue Aether c-Si



# 03

# GenVue Aether Q Glass

## 44.3 QG/20Ar/4ESG TH

- Max size 1000 x 2000 mm
- Recommended installation in a semi-structural system
- Suitable for all facade systems
- The possibility of using any glass in the package with QG

Transparency : 100%

|                                |   |                       |
|--------------------------------|---|-----------------------|
| <b>Rated power</b>             | $P_{MPP}$                               | 30,5 W/m <sup>2</sup> |
| <b>Efficiency of module</b>    | $\eta_{\text{moduls}}$                  | 3,1%                  |
| <b>Working voltage</b>         | $V_{MPP}$                               | 14,61 V               |
| <b>Open circuit voltage</b>    | $V_{\infty}$                            | 17,11 V               |
| <b>Working current</b>         | $I_{MPP}$                               | 2,09 A                |
| <b>Short-circuit current</b>   | $I_{SC}$                                | 2,42 A                |
| <b>Filling factor</b>          | FF                                      | 73,74%                |
| <b>Estimated unit power</b>    | 30,5 W/m <sup>2</sup> of module surface |                       |
| <b>Laminate</b>                | on 4mm panes, 6mm option                |                       |
| <b>Possibility of packages</b> | Laminated Glass / IGU                   |                       |
| <b>Max. package thickness</b>  | 100 mm                                  |                       |
| <b>Order quantity</b>          | 100 m <sup>2</sup>                      |                       |
| <b>Max. dim, forms</b>         | 1000 x 2000 mm                          |                       |

## Example Of Triple Glazed Unit

Currently, the product is intended for facade filling on buildings with large glazed areas.

4mm LowIron Glass

QG Layer

4mm Float Glass

4mm ThermoFloat

6mm ThermoFloat ESG Glass

Raster

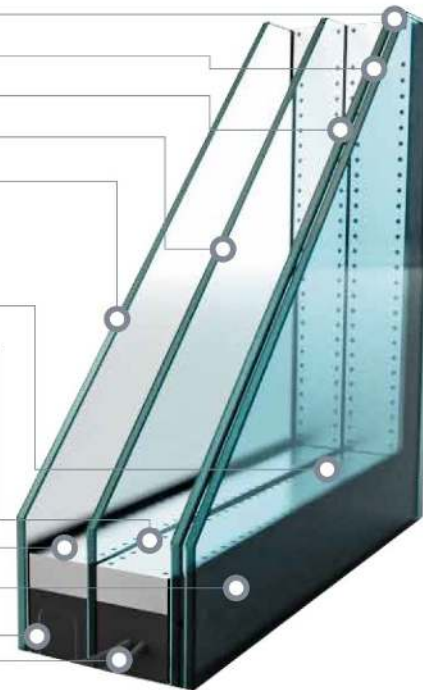
Spacer 20mm

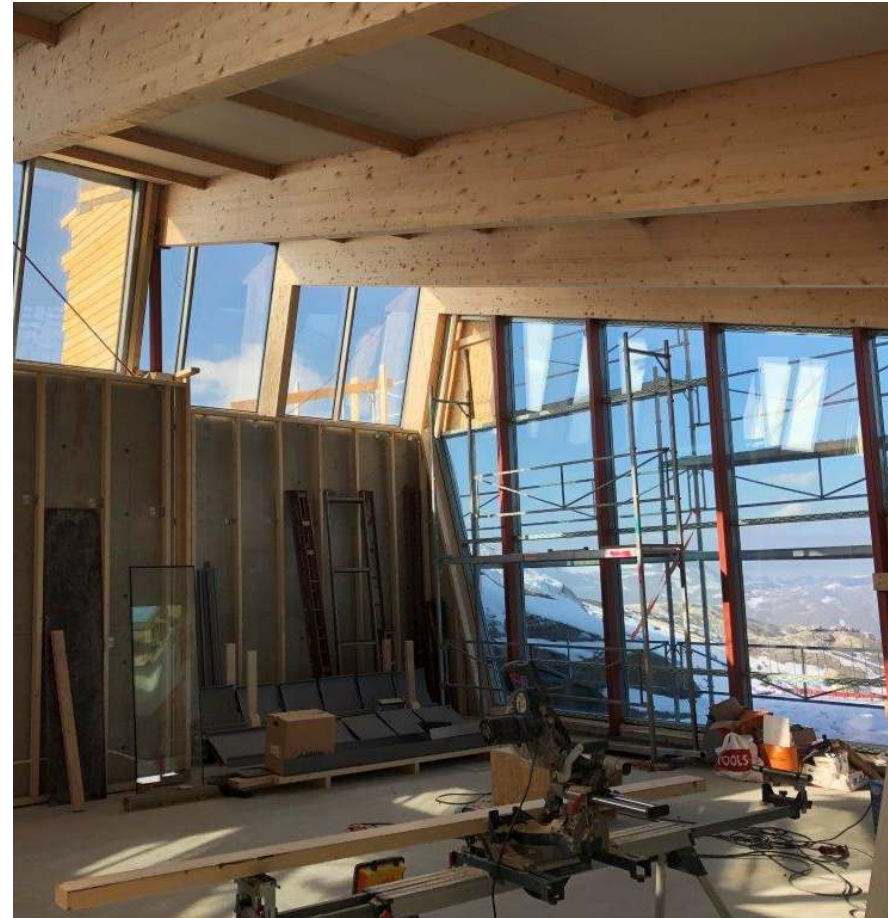
Spacer 16mm

Print /opacity 46mm

C-profile

JB





**Project Reference:**  
**Private House (under construction)**

# 04

# GenVue Aether a-Si

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## Amorphous Silicon

- Unobstructed views
- Coating over a layer of flat glass (CVD)
- Visual Light Tr : Dark, 10, 20, 30%
- Efficiency 3% - 6.2%
- Greater energy production (kWh) at the same installed power (kWp)
- Better behavior under the presence of shadows / overcast (tilt, orientation)
- Low temperature coefficient - performs well under high temperature





**Amorphous Silicon,  
30% Transparency Degree, Curtain Wall**

**Brunel University, Uxbridge,  
West London, UK**



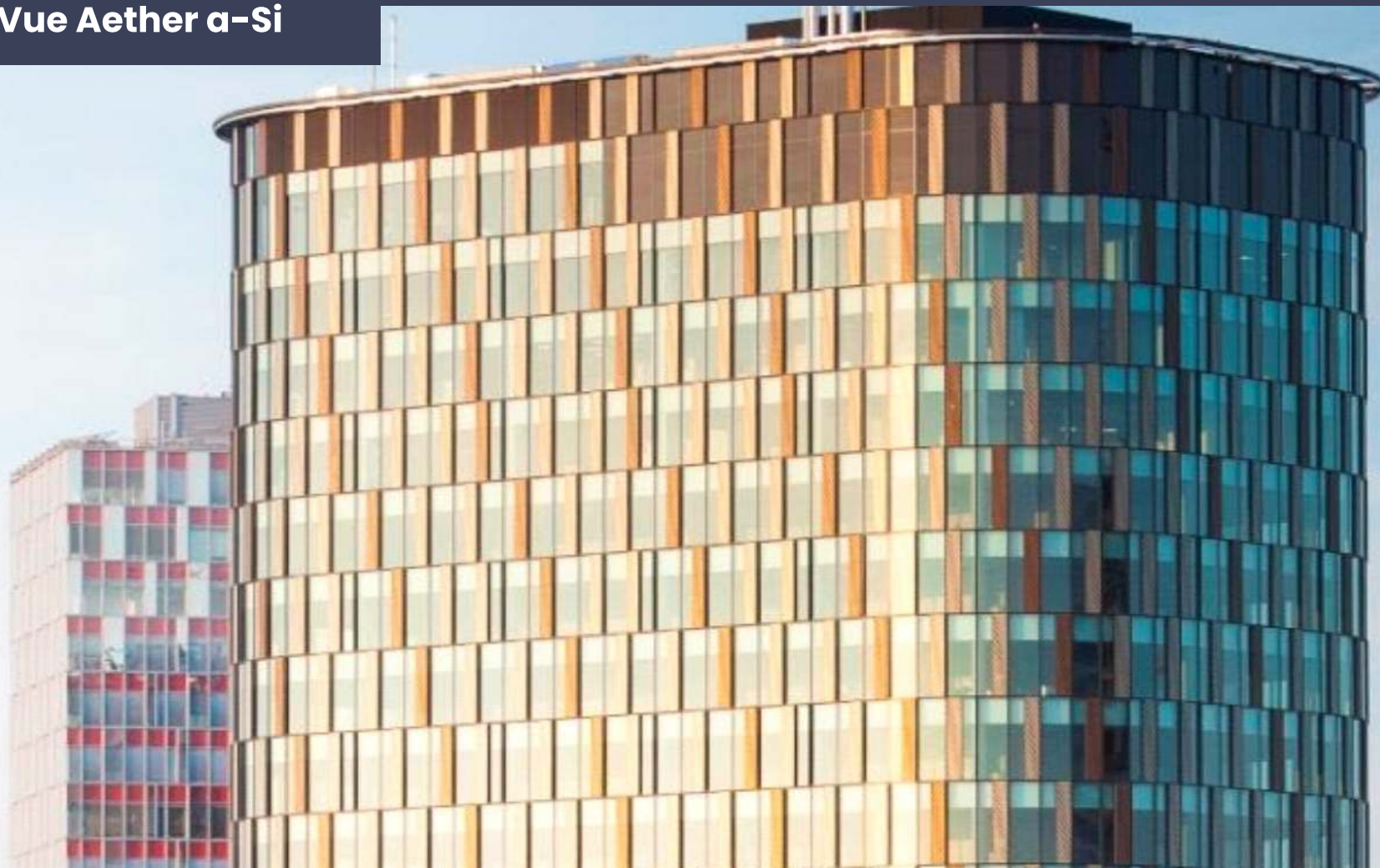
**Amorphous Silicon,  
Double Skin 20% Transparency**

**Cyprus International University,  
Nicosia**



## A-Si 20% Transparency Degree, Skylight

Bellworks  
New Jersey, USA



**Amorphous Silicon 0% Dark Curtain wall.**

**Twin City Building,  
Bratislava, Slovakia.**

**SERVING GLOBALLY**

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