

The background features several thick, wavy lines made of many thin, parallel yellow lines, creating a sense of motion and depth. These lines curve across the top and bottom of the page.

BACKSHEETS SOLUTIONS COMPARATIVE CHARTS

***GLASS GLASS vs GLASS BACKSHEET
&
CPC vs PPC***

COVEME

THE VALUE OF INNOVATION

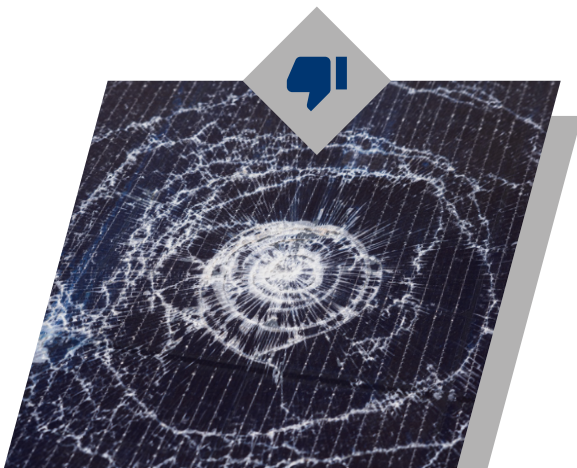
GLASS GLASS vs GLASS BACKSHEET

In the bifacial PV module market, there are two main alternatives to choose from: glass-glass modules and glass-backsheet modules. Selecting the right protection for your bifacial PV is crucial from both a durability and economic point of view.

Here's why glass-backsheet modules stand out as the superior choice compared to glass-glass modules:

GLASS BACKSHEET ADVANTAGES

- **Tempered Glass (≥ 3.2 mm):** glass-backsheet modules use thicker, stronger tempered glass compared to thinner non-tempered glass (≤ 2.0 mm) in glass-glass modules.
- **Higher impact resistance:** better protection against hail, reducing damage, extending lifespan and reducing maintenance costs.
- **Lower insurance costs:** enhanced durability reduces premiums due to decreased susceptibility to damage.
- **30% cost reduction:** lower bill of materials, optimized warehouse-related expenses, and minimized production waste.
- **20% Lighter:** easier to handle, reducing transport and management costs.
- **Improved handling:** lighter weight boosts productivity in installation and maintenance.
- **Increased production throughput:** resulting from reduced maintenance activity.



GLASS-GLASS MODULE

NON TEMPERED THIN GLASS ≤ 2.0



GLASS-BACKSHEET MODULE

TEMPERED GLASS ≥ 3.2 mm

GLASS-GLASS MODULE		GLASS-BACKSHEET MODULE
NON TEMPERED THIN GLASS ≤ 2.0		TEMPERED GLASS ≥ 3.2 mm
☀️☀️☐☐	Hail Resistance	☀️☀️☀️☀️
☀️☀️☀️☐	Bill of Material Saving	☀️☀️☀️☀️
☀️☀️☀️☐	Insurance cost Saving	☀️☀️☀️☀️
☀️☐☐☐	Handling & Production cost savings	☀️☀️☀️☀️
☀️☀️☐☐	Transport cost	☀️☀️☀️☀️
☀️☀️☐☐	Low Breakage Rate	☀️☀️☀️☀️
☀️☐☐☐	Facilitated Installation for distributed grid	☀️☀️☀️☀️
☀️☀️☀️☀️	Water Vapour Transmission	☀️☀️☐☐

BACKSHEETS COMPARISON: CPC vs PPC

In PV module installations for utility and commercial rooftops with 1500 VDC using PERC or TOPCon cells, CPC backsheets or PPC backsheets can be used. This choice not only affects the module’s durability but also impacts many other aspects of its overall performance.

BACKSHEETS STRUCTURE

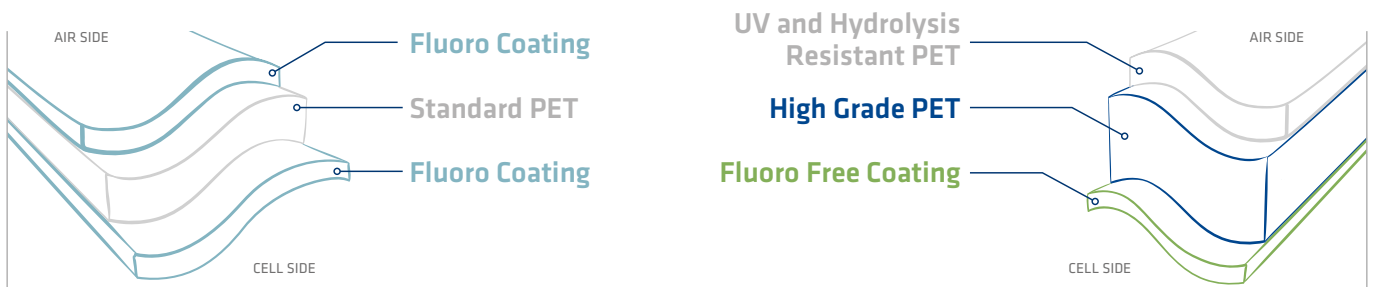
CPC backsheet: Fluoro Coating/Standard PET/Fluoro Coating

PPC backsheet: UV and Hydrolysis Resistant PET/High-Grade PET/Fluoro-Free Coating

Here’s why PPC Backsheet stands out as the superior choice compared to CPC Backsheet for each criterion of comparison:

PPC BACKSHEET ADVANTAGES

- **Carbon Footprint Impact:** PPC backsheets have a lower environmental impact compared to CPC due to the use of more sustainable materials as Fluoro Free coating.
- **Recyclability:** PPC backsheets are fully recyclable, whereas CPC backsheets are not.
- **Fire Hazard Risk:** in the case of flammability, the PPC product does not release harmful fumes.
- **UV Stability:** PPC backsheets offer superior UV resistance compared to CPC, ensuring greater durability under sun exposure due to the use of UV and hydrolysis resistant PET.
- **DHT Resistance:** PPC backsheets demonstrate superior resistance to humidity and heat, making them more durable in challenging environmental conditions, thanks to the use of high-grade PET.
- **Scratch Resistance:** PPC backsheets are more resistant to scratches, providing better protection than CPC in situations where surface wear is a concern.
- **Abrasion Resistance:** PPC backsheets have much higher abrasion resistance compared to CPC, reducing the risk of damage from friction or contact, during handling or transportation.



CPC BACKSHEET		PPC BACKSHEET
☆☆☆☆	Low Carbon Footprint Impact	★★★★
☆☆☆☆	Recyclability	★★★★
☆☆☆☆	Low Hazard Fire Risk	★★★★
☆☆☆☆	UV Stability	★★★★
☆☆☆☆	DHT Resistance	★★★★
☆☆☆☆	Scratch Resistance	★★★★
☆☆☆☆	Abrasion Resistance	★★★★

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CERTIFICATES**



ISO 9001:2015



ISO 14001:2015



ISO 45001:2023

**COVEME CHINA
CERTIFICATES**



ISO 9001:2015



ISO 14001:2015



ISO 45001:2018



Coveme insulating materials are UL Underwriters Laboratories certified and recognized by all major certification bodies worldwide.



Coveme is IATF (International Automotive Task Force) certified as suppliers to the automotive industry



Coveme has received the Bronze Medal Ecovadis certification as the result of a corporate sustainability performance evaluation.



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