

2024

# ***COVEME PHOTOVOLTAIC***

***BACKSHEET SOLUTIONS  
FOR INDIA***

**coveme**

THE VALUE OF INNOVATION

# COVEME PHOTOVOLTAIC DIVISION

Coveme develops and manufactures multilayer polymer laminates for solar panels which provide electrical insulation and protect solar cells from humidity and other atmospheric agents. This guarantees the duration and correct functioning of the solar module for up to 30 years.

With an internal production capacity of 20GW and a 25 year long experience in supplying the photovoltaic industry, Coveme is today the most long standing supplier of backsheets and frontsheets for pv modules in the market, and the only one with two production plants and three R&D hubs in Europe and Asia.

The company's dyMat® laminates range offers solutions for all types of pv modules in any installation environment. dyMat® photovoltaic laminates feature a wide choice of PFAS free products, mono and multilayer structures and several output enhancing options.

The use of recyclable materials as well as the offer of recycled polyester film (rPET) as base material are the result of specific research projects in collaboration with suppliers and scientific institutes and complete the range from a sustainable point of view. Coveme also offers a wide range of backsheets with fluorinated materials if required.

Today over 65 GW of solar panels installed worldwide are protected by dyMat® pv backsheets and frontsheets confirming the guaranteed and certified product performance of Coveme's photovoltaic materials. dyMat® products are TÜV RHEINLAND, TÜV SÜD certified and UL registered.

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■ **BACKSHEET AND FRONTSHEET SOLUTIONS** for any module type

■ **20 GW current internal PRODUCTION CAPACITY**

■ **BONDED WAREHOUSES** in Europe, China, Turkey and Usa

■ **25 YEARS OF EXPERIENCE** in supplying the PV industry

■ **PFAS FREE and LOW CARBON FOOTPRINT** products

■ **65 GW OF SOLAR PANELS INSTALLED** worldwide protected by dyMat®

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# SUSTAINABILITY

Coveme is well aware of its responsibility in terms of environment and social wellbeing. This is reflected not only in what we produce but also how we produce, which means a lean and green production technology and strategic partnerships with our customers and suppliers.

## SUSTAINABILITY STANDARDS



**ISO 14001: 2015 for environmental management**



**ISO 45001:2023 for health and safety at work**



**Compliance with Ecovadis Sustainability rating**

## SUSTAINABLE PRODUCTS

- 🌿 **PFAS free** and **low carbon footprint** backsheets
- 🌿 Backsheets made of **recycled polyester rPET** component
- 🌿 **LCA** and carbon footprint **analysis of a backsheet** for solar panels
- 🌿 Promotion of a **circular economy project**

## ACHIEVED GOALS

- 🌿 In 2023 Coveme group published its first **Sustainability Report**
- 🌿 Implementation of a **Strategic Sustainability Plan** starting from 2024
- 🌿 Calculation of **Carbon Footprint** based on **GHG protocol** for the Coveme group: **scopes 1,2,3**

## SUSTAINABILITY MEASURES

- 🌿 **Self-powering** and **Solvent-free** production lines
- 🌿 **Autothermal** and **regenerative processes in production**
- 🌿 **Recovery and reuse** of packaging, encaps and core
- 🌿 **Packaging disposal instructions** for clients
- 🌿 **Energy production and self-consumption** through installed solar panels
- 🌿 **Differentiation and recycling** of production and office waste
- 🌿 Treatment and **cleaning of harmful fumes and water**
- 🌿 **Reusable and recyclable** exhibitor stands
- 🌿 **Replacement of single-use plastic** materials

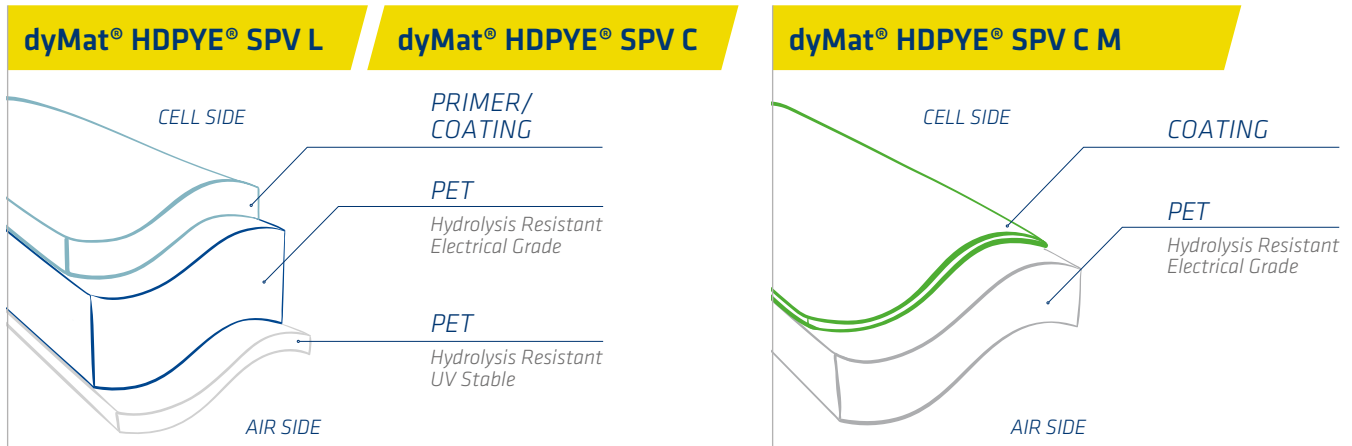
# 1500 VDC PET BASED BACKSHEETS

## NON FLUORO BACKSHEETS FOR PERC AND TOPCON CELLS

Coveme's PET based backsheets for 1500V features thicker inner PET layers in order to comply with the new IEC rules for 1500V insulation. It guarantees more than DHT 2500 hrs, PCT(HAST) 72 hrs and more than 400 kWh/m<sup>2</sup> of UV irradiation resistance. Coveme offers mono or multilayer versions for 1500 VDC, backsheets can be supplied in white, transparent or black colour.

- 1500 VDC installation
- High bonding capacity to encapsulate
- Excellent resistance from atmospheric agents

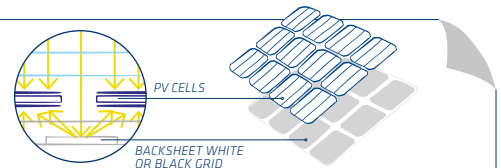
- Available with white, black or black high reflectivity coating
- Available with the 33% of recycled PET



### OUTPUT INCREASING OPTIONS:

#### dyMat® Selective

Optional white or black grid incorporated in the backsheet that turns the space in between the cells and the borders into a highly reflective area for significant output improvement. The grid layout is defined according to customer's cell shape and size.



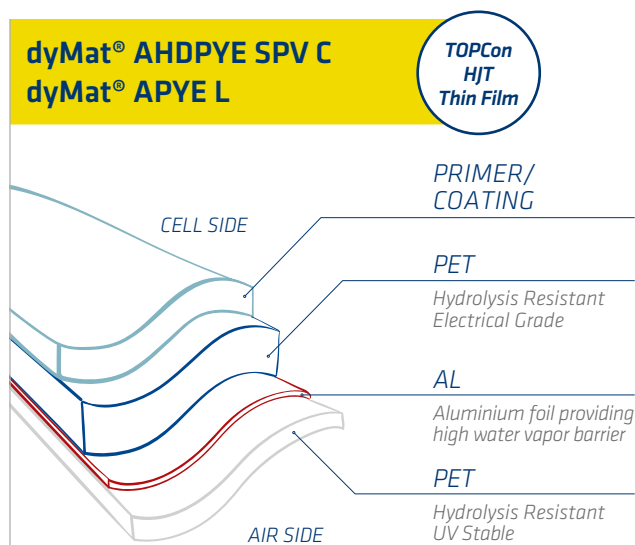
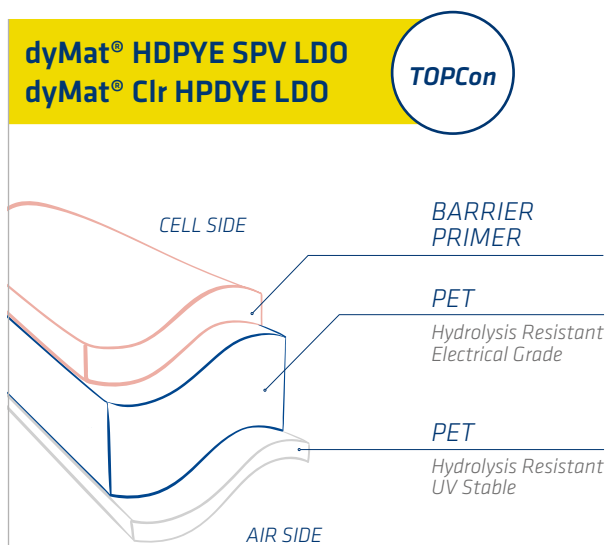
# HIGH BARRIER BACKSHEETS

## SPECIALTY NON FLUORO BACKSHEETS FOR TOPCON, HJT AND THIN FILM

Coveme has developed a range backsheets specifically designed for heterojunction cells, thin film (CIGS, a-Si and Perovskite), flexible and even c-Si photovoltaic modules installed near water. The range includes both backsheets with an aluminum layer, and backsheets with a barrier film, without the aluminum layer.

- Designed for TOPCon, HJT and Thin film
- Extra low WVTR value
- Innovative integrated barrier layer version
- Aluminium layer version
- Suitable for floating systems with all types of cells
- Available with 33% rPET inside
- Available in white, black or transparent versions (only barrier film without Aluminium)

1000/  
1500  
VDC



# CLEAR PET BASED BACKSHEETS FOR BIFACIAL PV

Coveme's dyMat® transparent high grade PET backsheets are employed as an alternative to glass in Bifacial modules or where transparency is required (eg. greenhouses). The polymers, primer and adhesives specifically developed for these products provide an extra high resistance to UV and humidity. dyMat® Clear PET Backsheets are suitable for 1000 and 1500 VDC and have a proven track record being employed in the world's first bifacial 1500V installation.

 **PFAS free, low carbon footprint, recyclable, rPET version**

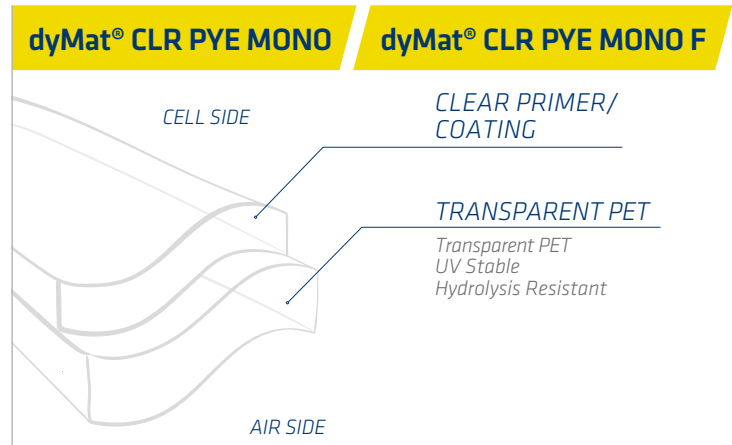
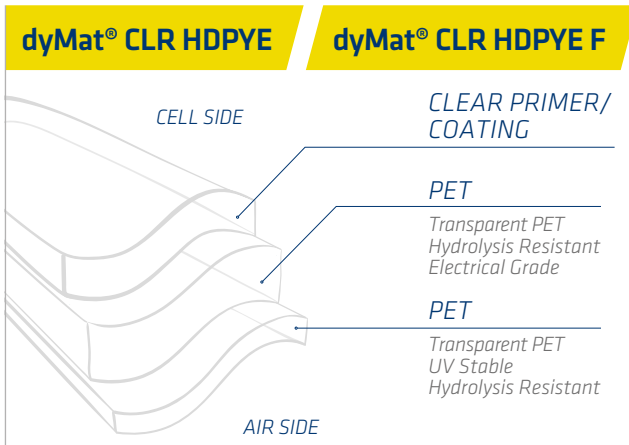
 **3000H DHT WITH <1% POWER DROP\***

*\*tested by Fraunhofer ISE*

**1000/  
1500  
VDC**

 **Black or white mesh grid**

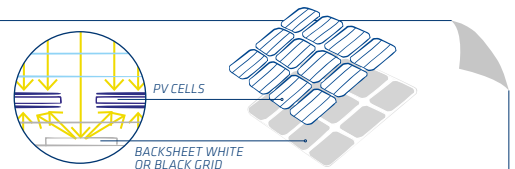
 **TOPCon, HJT and PERC cells**



**OUTPUT INCREASING OPTIONS:**

## dyMat® Selective

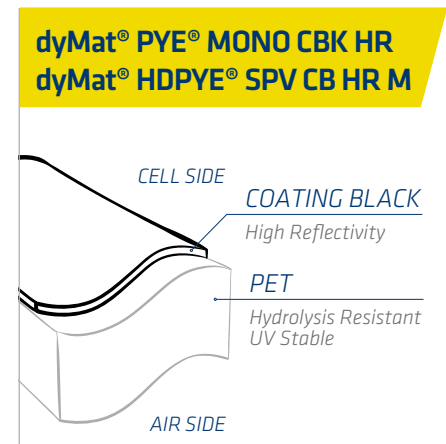
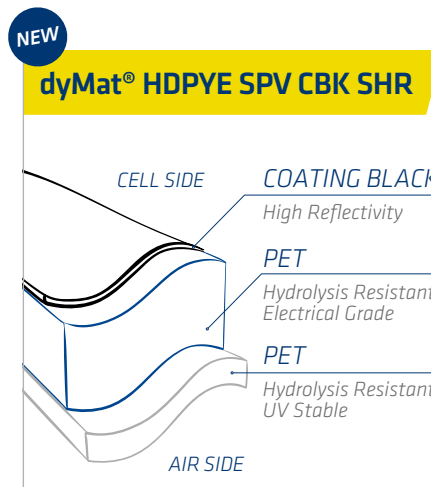
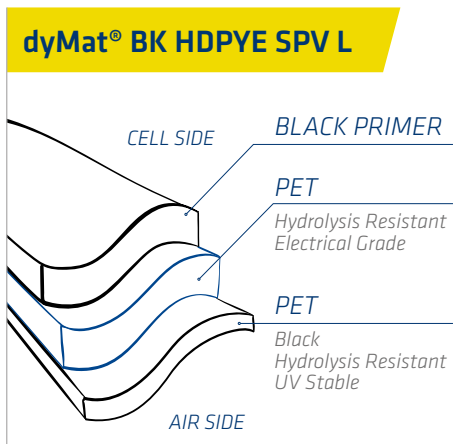
Optional white or black grid incorporated in the backsheet that turns the space in between the cells and the borders into a highly reflective area for significant output improvement. The grid layout is defined according to customer's cell shape and size.



# 1000/1500 PET BASED BLACK AND SUPER HIGH REFLECTIVITY BLACK BACKSHEETS

Coveme offers black or high reflectivity black backsheets for 1000/1500 VDC installation. The solutions offered include backsheets with black primer and black PET film or backsheets with monolayer or double layer backsheets with high reflectivity coating. The high reflectivity feature was studied and developed by Coveme in order to balance the intrinsic light absorption of black colour.

- For 1000/1500 VDC installation
- High bonding capacity to encapsulate
- Excellent resistance from atmospheric agents
- Aluminium layer version
- Available with the 33% of recycled PET
- Aesthetically appealing solution
- Available HR black coating providing reflectance >55%.
- Innovative SHR black coating providing reflectance >80%



Coveme is certified ISO 9001: 2015 for quality management standards, ISO 14001: 2015 for environmental management and ISO 45001:2023 for occupational health and safety.

## COVEME ITALY CERTIFICATES



ISO 9001:2015



ISO 14001:2015



ISO 45001:2023

## COVEME CHINA CERTIFICATES



ISO 9001:2015



ISO 14001:2015



ISO 45001:2018



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.

## COVEME PHOTOVOLTAIC PRODUCTS ARE UL REGISTERED AND TUV RHEINLAND AND TUV SUD CERTIFIED:



[www.coveme.com](http://www.coveme.com)

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