Backsheets and Frontsheets for PV modules
HIGH QUALITY BACKSHEETS FOR:

BIPV

COMMERCIAL

UTILITY

ROOFTOP

FLOATING
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OVER 50 GW OF INSTALLATIONS WORLDWIDE IN 20 YEARS OF ACTIVITY AS BACKSHEET AND FRONTSHEET PRODUCER

- OVER 50 YEARS of know-how in converting polyester film.
- 15 GW BACKSHEET AND FRONTSHEET PRODUCTION capacity per year
- Worldwide COMMERCIAL AND LOGISTIC NETWORK

- CERTIFIED QUALITY, SAFETY AND ENVIRONMENTAL standards.
- HIGH TECH R&D LABS in Europe and Asia.

COVEME TODAY

ITALY
- HEADQUARTER & PRODUCTION PLANT
- warehouses

CHINA
- COVEME BRANCH & PRODUCTION PLANT
- warehouses

USA
- warehouses

UK
- warehouse

TURKEY
- warehouse

MALAYSIA
- warehouse

SINGAPORE
- warehouse
Coveme has been converting polyester film for over 50 years and has successfully developed sophisticated technologies in the production of high-tech films for various industries. Clients’ specifications are defined individually and monitored throughout the whole production chain, including suppliers, logistics and service process.

**PRODUCTION**

- 15 GW LAMINATION AND COATING proprietary production capacity
- FULLY AUTOMATED processes
- CUSTOMIZED rolls, sheets and PUNCHED formats
- 14 production lines
- LAMINATION, SURFACE TREATMENT, HEAT STABILIZATION, COATING, SLITTING

**RESEARCH & DEVELOPMENT**

Our laboratories have always been one of the most advanced and strong points of the company, where our technological and operative know how is at complete disposal of the clients’ needs. Coveme’s research in photovoltaics focuses on the reliability of our products that guarantee our customers higher productivity, maximum module power output and the best cost efficiency.

- 3 R&D LABORATORIES in Europe and Asia
- Highly SOPHISTICATED EQUIPMENT
- CUSTOMIZED RESEARCH PROJECTS for clients
- Dedicated INNOVATION TEAM
- Strong academic and industrial PARTNERSHIPS
The choice of a quality backsheet or frontsheet is fundamental for the performance and durability of a PV module. Coveme’s dyMat® products are made of specifically developed polymers, adhesives and coatings to guarantee full protection and insulation of the module during its entire lifetime. Coveme’s production processes are subject to rigid and well defined quality protocols and are ISO 9001:2015 certified. 20 years of continuous investments in product and process innovation dedicated to the photovoltaic industry make Coveme the most reliable and longstanding supplier of quality materials in the market today.

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. The company continuously optimizes its emission treatments, waste disposal and energy resources and actively pushes forward sustainability.

QUALITY

- Long history of high quality backsheets and frontsheets
- Guaranteed durability and performance
- Specific and efficient base materials
- International certified standards through ISO 9001:2015
- Constant investment in product and process innovation

SUSTAINABILITY

- Energy self-consumption through installed solar panels
- Partial self-powering production lines
- Treatment and cleaning of harmful fumes and water
- Take back scheme of cores and end caps with clients
- Recycling and reuse of packaging material
- Differentiation and recycling of production scrap and office waste
- Replacement of single-use plastic materials
- Partial self-powering of production lines
- Zero-mile canteen with organic food
GREEN PRODUCT: The polyester film inside dyMat® backsheets and frontsheets can be fully recycled.

RECYCLED PRODUCT: All dyMat® products can be supplied with the polyester component(s) made of recycled PET (rPET).

CRADLE-TO-CRADLE PROJECT: Scrap is converted into new PET for the manufacturing of backsheets and frontsheets.

EOL AND LCA: Close collaboration with official bodies to promote scientific studies and findings.

ECODESIGN AND ECOLABELLING: 100% Compliance with all existing regulations.

MEMBERSHIPS

Coveme is honoured to be member of the most prestigious associations and bodies in the photovoltaic industry around the globe. With its deep know-how in specialty films and its long-standing presence in the PV market Coveme is pleased to give its contribution to the growth of these associations, believing strongly in the benefit of a continuous cross-fertilization among peers.
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 15GW and a 20 year long experience in supplying the photovoltaic industry, Coveme is today one of the top three suppliers of backsheets and frontsheets for pv modules in the market. The company’s dyMat® range of solar panel films offers solutions for all types of pv modules in any installation environment. dyMat® photovoltaic laminates feature a wide choice of polyester and fluorinated materials, mono and multilayer structures and several output enhancing options. The use of recyclable materials as well as the recent introduction of recycled polyester film (rPET) as base materials are the result of specific research projects in collaboration with suppliers and scientific institutes and complete the range from a sustainable point of view.

Today over 50 GW of solar panels installed worldwide are protected by dyMat® pv backsheet and frontsheet and confirm the guaranteed and certified product performance of Coveme’s photovoltaic materials.

- **BACKSHEET AND FRONTSHEET SOLUTIONS** for any module type
- **20 YEARS OF EXPERIENCE** in supplying the PV industry
- **15 GW current internal PRODUCTION CAPACITY**
- Certified insulation and protection for **UP TO 30 YEARS**
- **50 GW OF SOLAR PANELS INSTALLED** worldwide protected by dyMat®
dyMat® OVERVIEW
BACKSHEETS AND FRONTSHEETS FOR PV MODULE SOLUTIONS

FUNCTION

- Electrical insulation up to 1500 VDC
- High humidity resistance
- Strong UV protection
- Chemical and physical durability

ADDED VALUE

- DyMat® is a vast range of different materials for a totally customizable backsheet and frontsheet:
  - Polyester and fluorinated based versions
  - Mono and double layer solutions
  - Special coatings for extra protection
  - Special primers for higher module performance
  - Transparent versions as alternative for glass
  - Large range of widths for rolls and sheets
  - Extended life time up to 30 years available
  - Recyclable and recycled products

QUALITY

- DyMat® products are certified by the world's major certification bodies:
  - TÜV Rheinland certified
  - UL registered
  - TÜV Süd certified
  - Jet certified

APPLICATIONS

- DyMat® backsheets and frontsheets are specifically designed for different types of installation:
  - Utility power plants
  - Residential rooftop
  - Commercial and industrial buildings

SPECIALITIES

- Coveme develops materials with highly innovative films and coatings for leading-edge applications:
  - CPV - Concentrator Photovoltaics
  - Backcontact Technology
  - Flexible, printed and organic PV

MODULE TECHNOLOGIES

- DyMat® solutions satisfy the specific requirements of all kinds of module types:
  - Standard
  - Semi-Flexible
  - Bifacial
  - Thin film

- Floating systems
- Building integrated photovoltaics
- Integrated PV in automotive and nautical

- RETRO-FITTING PV plants
- CSP - Concentrating Solar Power
- Utility power plants
- Residential rooftop
- Commercial and industrial buildings

- Tyv Rheinland certified
- UL registered
- TÜV Süd certified
- Jet certified
## PRODUCT RANGE

### 1000 VDC PET BASED BACKSHEETS
- dyMat® White Double Layer Pet
- dyMat® PYE SPV-SPV L
- dyMat® PYE L 305
- dyMat® PYE 3000-3000 L
- dyMat® Monolayer White Pet
- dyMat® PYE MONO L
- dyMat® PYE MONO L T
- dyMat® PYE MONO L PLUS
- dyMat® Clear Monolayer Pet
- dyMat® Clr PYE MONO CX
- dyMat® Clear Double Layer Pet
- dyMat® Clr HDPYE CX

### 1500 VDC PET BASED BACKSHEETS
- dyMat® White Double Layer Pet
- dyMat® HDPYE SPV C
- dyMat® HDPYE SPV L
- dyMat® Clear Double Layer Pet
- dyMat® Clr HDPYE CX

### 1000/1500 VDC TEDLAR BASED BACKSHEETS
- dyMat® White Tedlar Based 1000 VDC
- dyMat® TsL 50/250
- dyMat® TsL 75/150
- dyMat® TsL 100/190
- dyMat® Clear Tedlar Based 1000 VDC
- dyMat® Clr TsL 50/285

### 1000/1500 VDC PVDF BASED BACKSHEETS
- dyMat® PVDF Based 1000 VDC
- dyMat® KL 50/250
- dyMat® KL 75/150
- dyMat® KL 100/190
- dyMat® PVDF Based 1500 VDC
- dyMat® KL 50/285
- dyMat® KL 50/350

### 1000 - 1500 VDC DYMAT® FRONTSHEETS
- dyMat® Clear Frontsheets
- dyMat® ClrFS PYE MONO CXG (1000 VDC)
- dyMat® ClrFS HDPYE CXG (1500 VDC)

### DYMAT® SPECIALITIES
- dyMat® Floating PV Systems
- dyMat® Flexible, printed, organic PV
- dyMat® CPV - CSP
- dyMat® Backcontact technology
- dyMat® Retro fitting laminates

### DYMAT® ACCESSORIES
- dyMat® EPE
- dyMat® E
Coveme’s most selling backsheet, with over 250 million m² sold worldwide and successfully proven in the market for more than 10 years. It features a special high-grade PET able to guarantee more than DHT 2500 hrs, PCT(HAST) 72 hrs and more than 400 kWh/m² of UV irradiation resistance. Additionally, the dyMat® PYE series provides a high adhesion strength to all types of encapsulants, excellent resistance to sand, salt mist, ammonia and chemical solvents corrosion.
1000 VDC PET BASED BACKSHEETS

dyMat® MONOLAYER WHITE PET

This new generation of backsheet from Coveme is based on a single PET layer (Mono Layer) that features superior resistance to UV and hydrolysis thanks to its bulk technology. Contrarily to the co-extrusion technology, the bulk technology features the UV protection all across the whole thickness of the single PET layer. Coveme’s monolayer backsheet shows excellent performances in the combined UV+DHT tests, and features an intrinsic high reflectivity.
1000 VDC PET BASED BACKSHEETS

**Features**
- UV stable
- Hydrolysis resistant
- Engineered adhesive
- Higher output
- High mechanical resistance
- Extended life time up to 30 years

**Output Increasing Options:**
- **dyMat® Selective**
  Optional white 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.
- **dyMat® HMirror LR**
  It is possible to use dyMat®HMirror LR reflective laminates for retro-fitting of PV installations to increase the final output.

**PRIMER TYPES**
- **LO**
  Extra UV protection on cell side
- **LD**
  High humidity barrier
- **LDO**
  High humidity barrier + UV protection

**dyMat® CLEAR MONOLAYER PET**
Totally transparent high grade polyester backsheets for bifacial or standard modules in BIPV, utility, greenhouse, commercial installations, and grid or off grid application. This new generation of clear backsheets with special UV primer allows to replace standard backsheets for high transparency solutions. dyMat® Clear Monolayer for 1000 VDC features superior resistance to UV and hydrolysis thanks to its bulk technology which features UV protection all across the whole thickness.
Coveme’s black backsheet is the most suitable solution for the best color fit of all-black PV modules, mainly applied for roof-top and facades installations. It features a black primer on the cell side and a black PET on the air side of the backsheet and it is based on special high-grade PET able to guarantee more than DHT 2500 hrs, PCT(HAST) 72 hrs and more than 400 kWh/m² of UV irradiation resistance. Additionally, the dyMat® BK PYE series provides a high adhesion strength to all types of encapsulants, excellent resistance to sand, salt mist, ammonia and chemical solvents corrosion.
Coveme’s PET backsheets for 1500V have a proven track record being employed in the world’s first 1500V project and further major ongoing 1500V plants. It 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/m² of UV irradiation resistance. Additionally, the dyMat® HDPYE series provides a high adhesion strength to all types of encapsulants, excellent resistance to sand, salt mist, ammonia and chemical solvents corrosion.

### Additional upgrades

- **Extra Low WVTR**
- **High Reflectance**
- **1500 VDC (in oil)**
- **HDPYE® SPV L**

- **HDPYE® SPV C**
**1500 VDC PET BASED BACKSHEET**

- **PET COEX**: Transparent PET, Hydrolysis Resistant (HR), Electrical Grade
- **Clear UV PRIMER**: Extra UV protection on cell side
- **LO**: High humidity barrier
- **LD**: Extra UV protection on cell side
- **LDO**: High humidity barrier + UV protection

**Features**
- UV stable
- Hydrolysis resistant
- Engineered adhesive
- Higher output
- High mechanical resistance
- Extended life time up to 30 years

**dyMat® CLEAR DOUBLE LAYER PET**

Totally transparent high grade polyester based backsheets for bifacial or standard modules in BIPV, utility, greenhouse, commercial installations, and grid or off grid application. This new generation of clear backsheets with special UV primer allows to replace standard backsheets for high transparency solutions. dyMat® Clear Double Layer for 1500 VDC features a thicker inner PET layers in order to comply with the new IEC rules for 1500V insulation and has a proven track record being employed in the world’s first bifacial 1500V installation.

**PRIMER TYPES**

- **LO**: Extra UV protection on cell side
- **LD**: High humidity barrier
- **LDO**: High humidity barrier + UV protection

**OUTPUT INCREASING OPTIONS:**

**DYMAT® SELECTIVE**

Optional white 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.

**DYMAT® HMIRROR LR**

It is possible to use dyMat®HMirror LR reflective laminates for retro-fitting of PV installations to increase the final output.
dyMat® WHITE TEDLAR® BASED

Coveme’s Tedlar® based backsheet for 1000 VDC features a PVF layer of 25µm thickness combined with several options of inner PET thickness ranging from 150µm up to 250µm. As for the excellent Tedlar® weatherability properties, Coveme dyMat® TsL series exhibits outstanding resistance to UV irradiation. Fluorinated coating on cell side available.

**Additional upgrades**
- **Primer 50µm** or fluorinated coating / PET 250µm
- **Primer 75µm** or fluorinated coating / PET 150µm
- **Primer 100µm** or fluorinated coating / PET 190µm

**1000 VDC TEDLAR BASED BACKSHEETS**

Coveme’s Tedlar® based backsheet for 1000 VDC features a PVF layer of 25µm thickness combined with several options of inner PET thickness ranging from 150µm up to 250µm. As for the excellent Tedlar® weatherability properties, Coveme dyMat® TsL series exhibits outstanding resistance to UV irradiation. Fluorinated coating on cell side available.
dyMat® CLEAR TEDLAR® BASED

Totally transparent Tedlar® based backsheets for bifacial or standard modules in BIPV, utility, greenhouse, commercial installations, and grid or off grid application. This new generation of clear backsheets with special UV primer allows to replace standard backsheets for high transparency solutions. The primer and adhesives specifically developed for these products provide an extra high resistance to UV and humidity. Fluorinated coating on cell side available.

Features
- UV stable
- Hydrolysis resistant
- Engineered adhesive
- Higher output
- High mechanical resistance
- Extended life time up to 30 years

Output Increasing Options:

DYMAT® SELECTIVE
Optional white grid incorporated in the backsheets 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.

DYMAT® HMIRROR LR
It is possible to use dyMat®HMirror LR reflective laminates for retrofitting of PV installations to increase the final output.

PRIMER TYPES
- LO Extra UV protection on cell side
- LD High humidity barrier
- LDO High humidity barrier + UV protection
**1500 VDC TEDLAR® BASED BACKSHEETS**

Coveme’s Tedlar® based backsheet for 1500 VDC features a PVF layer of 25µm thickness combined with two options of inner PET thickness, 285µm or 350µm. As for the excellent Tedlar® weatherability properties, Coveme dyMat® TsL series exhibits outstanding resistance to UV irradiation. Fluorinated coating on cell side available.

**dyMat® WHITE TEDLAR® BASED**

- **TsL 50/285**
  - > 1500 VDC
  - Extra Thick PET 350µm

- **TsL 50/350**
  - > 1500 VDC

**Additional upgrades**

- **LO**: Extra UV protection on cell side
- **LD**: High humidity barrier
- **LDO**: High humidity barrier + UV protection
- **SNR**: Super high reflectivity
- **LBk**: Black on cell side
- **Bkhr**: Black high reflectivity

CLEAR UV PRIMER OR FLUORINATED COATING

PET

Hydrolysis Resistant Electrical Grade

TEDLAR®

**TsL 50/285**

**TsL 50/350**

AIR SIDE

CELL SIDE
**dyMat® CLEAR TEDLAR® BASED**

Totally transparent Tedlar® based backsheets for bifacial or standard modules in BIPV, utility, greenhouse, commercial installations, and grid or off-grid application. This new generation of clear backsheets from Coveme with special UV primer allows to replace standard backsheets for high transparency solutions. dyMat® TEDLAR® Clear for 1500 VDC features a thicker inner PET layer in order to comply with the new IEC rules for 1500 VDC insulation. Fluorinated coating on cell side available.

**Features**
- UV stable
- Hydrolysis resistant
- Engineered adhesive
- Higher output
- High mechanical resistance
- Extended life time up to 30 years

**PRIMER TYPES**

- **LO** Extra UV protection on cell side
- **LD** High humidity barrier
- **LDO** High humidity barrier + UV protection

**OUTPUT INCREASING OPTIONS:**

**dyMat® SELECTIVE**

Optional white 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.

**dyMat® HMIRROR LR**

It is possible to use dyMat® HMirror LR reflective laminates for retro-fitting of PV installations to increase the final output.
Coveme’s PVDF-based backsheet for 1000 VDC features a PVDF layer combined with several options of inner PET thickness ranging from 150µm up to 250µm. This Coveme fluoro-based backsheet, dyMat® KL series, features a superior resistance to UV irradiation. Clear version available upon request.

**dyMat® PVDF BASED**

- **KL 50/250**
  - Primer 50µm / PET 250µm

- **KL 75/150**
  - Primer 75µm / PET 150µm

- **KL 100/190**
  - Primer 100µm / PET 190µm

**Additional upgrades**

- **LD** Extra UV protection on cell side
- **LDH** High humidity barrier + UV protection
- **SHR** Super high reflectivity
- **LBk** Black on cell side
- **Bkhr** Black high reflectivity
Coveme’s PVDF based backsheet for 1500 VDC features a PVDF layer combined with a thicker inner PET layer. This Coveme fluoro-based backsheet, dyMat KL series, features a superior resistance to UV irradiation. Clear version available upon request.

dyMat® PVDF BASED

KL 50/250

>1500 VDC (in oil)

KL 50/285

>1500 VDC

NEW IEC

Standard Compliant

Additional upgrades

LO
Extra UV protection on cell side

LH
High humidity barrier

LDO
High humidity barrier + UV protection

SHR
Super high reflectivity

LB
Black on cell side

Bkhr
Black high reflectivity

1500 VDC PVDF BASED BACKSHEETS
1000 - 1500 VDC dyMat® FRONTSHEETS

This new generation of clear frontsheets developed by Coveme features an extra high UV and hydrolysis resistant polymer and is employed instead of glass, in semi-flexible and lightweight module. These highly transparent frontsheets are characterized by a specific coating with outstanding anti-scratch and anti-abrasion properties. dyMat® frontsheets are designed for up to 1500 VDC for pv modules in rooftop, automotive or nautical installations and grid or off grid application. Matt anti-glare versions are available.

dyMat® CLEAR FRONTSHEETS

dyMat® ClrFS PYE MONO CXG and ClrFS HDPYE CXG feature an innovative coating, proprietary of Coveme, that has been developed by the company’s R&D departments. It is applied in an ultra-modern coating process that guarantees an elevated standard and combines the latest UV coating and EB curing technologies for dyMat® backsheets and frontsheets of constant and reproducible quality.

Features
- Anti scratch
- Anti abrasion
- Hydrolysis resistant
- Engineered adhesive
- Highly UV resistant
- Extended lifetime up to 30 years
Coveme’s Aluminum backsheets features a special Al layer of thickness variable between 9µm up to 50µm. The special backsheets construction allows an extra low WVTR and a superior moisture protection for humidity sensitive solar cells. Therefore, it is the most suitable solution for thin film (CIGS and a-Si) flexible PV modules and also for c-Si PV modules used in floating installations where high humidity and high temperature can easily deteriorate the module power output.

**dyMat® FOR FLOATING PV SYSTEMS**

**dyMat® SPECIALITIES**

![Diagram](image)

**APYE®**

- **AIR SIDE**
  - AL: Aluminium foil providing high water vapor barrier
  - PET: Hydrolysis Resistant Electrical Grade

**CELL SIDE**

- PRIMER: PET
- PET: Hydrolysis Resistant UV Stable
- APYE®: Extra Low WVTR

**FLOATING MODULES**

**Additional upgrades**

- **LO**: Extra UV protection on cell side
- **SHR**: Super high reflectivity
- **Bk**: Black polyester on air side and black on cell side
- **LBk**: Black on cell side
- **Bkhr**: Black high reflectivity
Coveme has developed specific dyMat® films and laminates that are employed as frontsheet or backsheet in flexible lightweight photovoltaic modules. For printed solar cells Coveme offers special films with printable coatings and high dimensional stability. Applications include rooftop, building integrated, automotive, nautical and all surfaces with limited loading capacity.

dyMat® FOR FLEXIBLE, PRINTED AND ORGANIC PV

dyMat® Frontsheet is a totally transparent laminate with a special coating for enhanced UV and scratch resistance combined with UV filtering properties. These characteristics make it particularly suitable to be employed as a frontsheet in flexible photovoltaics. For the back protection of these modules Coveme offers a range of high performance dyMat® Backsheets in different colours that guarantees durability over the years, electrical insulation and high resistance to weathering agents such as moisture and extreme temperatures.

In the field of printable and organic photovoltaics Coveme offers its dyMat® Printable, a heat stabilized and surface treated polyester film suitable for roll to roll and sheet printing processes.

Totally Transparent
Enhanced UV Resistance
Dimensionally Stable
Low WVTR
PDT > 1500 VDC

Printable

dyMat® Frontsheets

dyMat® Printable

dyMat® Backsheets
Coveme has developed a dyMat® laminate with mirror functions for photovoltaic concentrators and concentrating solar power plants. Compared to standard glass dyMat® Mirror HR that has several advantages in the functioning and for the energy output of these installations:

- Lower weight due to thinner components
- Lower material and installation costs
- Flexible material adaptable to any design and application
- Easier handling and shipping

### dyMat® FOR CONCENTRATOR PHOTOVOLTAICS (CPV) AND CONCENTRATING SOLAR POWER (CSP)

Coveme dyMat® Mirror HR is a multilayer substrate, made of two layers of polyester film with a metallization in between. The front side is an ultra clear polyester film coated with a UV resin, the backside is heat sealable, suitable for coil lamination on galvanized steel. The metallized layer guarantees the high performance and durability of solar concentrators. The surface coating provides resistance to abrasion scratch, and has been designed by our engineers for high durability to UV exposure.
Coveme has been a pioneer in the development of special backsheets with an integrated conductive layer for PV modules made with backcontact PERC-MWT and IBC cells. There are specific solutions for glass-backsheet and glass-glass modules that guarantee a higher manufacturing yield.

- High-efficiency cells
- Higher output of the panel
- Near to zero cell to module loss

**dyMat® HPYA TATS**

*dyMat® FOR BACKCONTACT TECHNOLOGY*

*dyMat® HPYA TATS* is an innovative backsheet made of high performance polyester, a thermoplastic primer and a copper or aluminium conductive layer for the manufacturing of backcontact photovoltaic modules. The passivation treated conductive layer is designed to become the electrical circuit for the back connection of the cells, whereas the pet film functions as back protection for the module.
Coveme has developed a highly reflective laminate developed for the retrofitting of Bifacial and standard PV modules. dyMat® HMirror LR is installed between the module rows and reflects the sun light back onto the module, thus increasing the average energy output of the installation.

- Significant average energy output gain +10-15%
- Set-up possible in already existing installations
- Works within plant peak power
- No temperature increase on module side

**dyMat® FOR RETRO-FITTING OF PV INSTALLATIONS**

dyMat® HMirror LR polymeric mirror film is a multilayer metallized laminate with a special scratch abrasion and UV resistant coating. The product is specifically designed for retro-fitting and features strong durability and high reflectance.
ACCESSORIES

**dyMat EPE®**

dyMat EPE® is designed to be used as electrical insulator in between ribbons and bus bars in PV module fabrication. The material has a perfect bonding with both encapsulation EVA and whichever backsheet, thanks to its structure with a double layer of Primer.

- Multilayer component made of PRIMER/PET/PRIMER
- Enhanced adhesion with encapsulant
- White, black and transparent versions available.

**dyMat E®**

Transparent adhesive tape made of EVA. It is used to fix components such as cells, ribbons etc. during PV module fabrication. In the lamination process the substrate melts and becomes totally embedded with encapsulating EVA.

- Transparent EVA
- Modified acrylic emulsion adhesive
AWARDS & CERTIFICATIONS

- Trina Solar Supplier Award 2017
- Solar World Supplier Award 2015
- China Awards for Innovation Technology 2019
- Hanwha Solar Supplier Award 2018
- Vikram Solar Preferred Partner 2013
