# Sunpower Flexible Solar Panel

— ETFE+EVA+SUNPOWER CELL+EVA+TPT —



## THE MAIN FEATURES



#### **Sunpower Solar Cell**

Cell Efficiency 24%, delivering to your project the most powerfullcell available on the commercial market



#### **ETFE Suface**

Absorbs sunlight, no relection.95% transparency ofers excellent eiciency in terms of light to electricity conversion



#### **Flexible**

After bending, the solar panel can still beused, Perfectly adhered to various surfaces



#### **Ultar-Thin & Ultra-Light**

Thickness 3.0 mm & Ultra-Light, so it can be used in most scenes where traditional solar panels can't be used



#### **Waterproof and Durable**

Made of advanced waterproof materials, waterproof IP67, easy to clean, High temperature resistant



#### **Junction box**

Junction box built-in diode and sealant glue, Sealed and waterproof, Strong stability and durability





#### **CELL PHYSICAL CHARACTERISTICS**

Wafer: Monocrystalline silicon

Design: All back contact

Front: Uniform black antireflection coating

Back: Tin-coated copper metal grid

#### **FUNDAMENTALLY DIFFERENT AND BETTER**

- 1. Ultra-pure, n-type, monocrystalline silicon for maximum power
- 2. Tin barrier prevents corrosion
- 3. Uniquely durable back-contact design with no ribbons
- 4. Clean and elegant aesthetics by designing out front contacts



#### TRUSTED DURABILITY

Solid metal foundation helps cell bend where others break under pressure

Conductive and malleable foundation keeps cell electrically intact even if eventually cracked

Cells solder to lead-free components and are RoHS compliant

### **PRODUCT SPECIFICATIONS**

| Maximum<br>Power/Pmax(Wp) | Operating<br>Voltage/Vmp(V) | Operating<br>Current/Imp(A) | Open Circuit<br>Voltage/Voc(V) | Short Circuit<br>Current/Isc(A) | Cell<br>Efficiency | Weight<br>(Kg) | Dimension<br>(mm) |
|---------------------------|-----------------------------|-----------------------------|--------------------------------|---------------------------------|--------------------|----------------|-------------------|
| 20                        | 21.60                       | 0.93                        | 25.92                          | 1.02                            | 24%                | 0.3            | 434*277*3         |
| 30                        | 19.20                       | 1.56                        | 23.04                          | 1.72                            | 24%                | 0.5            | 560*277*3         |
| 40                        | 19.20                       | 2.08                        | 23.04                          | 2.29                            | 24%                | 0.6            | 535*378*3         |
| 60                        | 19.20                       | 3.13                        | 23.04                          | 3.44                            | 24%                | 0.7            | 560*540*3         |
| 65                        | 21.60                       | 3.01                        | 25.92                          | 3.31                            | 24%                | 0.8            | 625*540*3         |
| 75                        | 24.00                       | 3.13                        | 28.80                          | 3.44                            | 24%                | 0.9            | 685*535*3         |
| 90                        | 28.80                       | 3.13                        | 34.56                          | 3.44                            | 24%                | 1.0            | 810*540*3         |
| 105                       | 16.80                       | 6.25                        | 20.16                          | 6.88                            | 24%                | 1.2            | 920*540*3         |
| 120                       | 19.20                       | 6.25                        | 23.04                          | 6.88                            | 24%                | 1.6            | 1050*540*3        |
| 135                       | 21.60                       | 6.25                        | 25.92                          | 6.88                            | 24%                | 1.8            | 1180*540*3        |
| 150                       | 24.00                       | 6.25                        | 28.80                          | 6.88                            | 24%                | 2.0            | 1305*540*3        |
| 165                       | 26.40                       | 6.25                        | 31.68                          | 6.88                            | 24%                | 2.2            | 1435*540*3        |
| 185                       | 29.40                       | 6.29                        | 35.28                          | 6.92                            | 24%                | 2.5            | 1320*665*3        |
| 205                       | 33.00                       | 6.21                        | 39.60                          | 6.83                            | 24%                | 2.7            | 1435*665*3        |
| 225                       | 36.00                       | 6.25                        | 43.20                          | 6.88                            | 24%                | 2.9            | 1300*800*3        |
| 245                       | 39.60                       | 6.19                        | 47.52                          | 6.81                            | 24%                | 3.2            | 1435*800*3        |
| 270                       | 43.20                       | 6.25                        | 51.84                          | 6.88                            | 24%                | 3.5            | 1560*800*3        |
| 290                       | 46.80                       | 6.20                        | 56.16                          | 6.82                            | 24%                | 4.0            | 1680*800*3        |
| 315                       | 50.40                       | 6.25                        | 60.48                          | 6.88                            | 24%                | 4.3            | 1810*800*3        |
| 340                       | 54.60                       | 6.23                        | 65.52                          | 6.85                            | 24%                | 4.7            | 1680*920*3        |
| 365                       | 58.80                       | 6.21                        | 70.56                          | 6.83                            | 24%                | 5.2            | 1810*920*3        |

#### PERFORMANCE OF ETFE VS PET

| Material                                | ETFE                                                                                                                                              | PET                                                                                                           |  |  |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|--|--|
| Combination                             | Ultra lightweight and durable. The combination between ETFE and back sheet is much stronger than PET                                              | Combination of PET is not as durable and waterproof as ETFE                                                   |  |  |
| Light transmission                      | 95% transparency ofers excellent eiciency in terms of light to electricity conversion                                                             | 90% to 93% transparent results in lower efficiency in terms of light to electricity conversion                |  |  |
| Surface adhesion                        | ETFE has non-adhesive surface properties. Highly stain-resistant and easily gets cleaned by the rain                                              | Adhesive surface may get covered with dust or other debris, significantly affecting the output of solar panel |  |  |
| Lifetime<br>(combined with solar panel) | More than 12 years, resists aging,deteriorates slowly                                                                                             | Around 10 years, may form air pockets and peels of during using                                               |  |  |
| Corrodibility                           | Highly resistant to seawater corrosion                                                                                                            | Not acid and alkali resistant, making it not leally for use in marine environment                             |  |  |
| Flammability                            | Highly flame retardant. Suitable for use in temperatures ranging from -65 $^{\circ}$ to +150 $^{\circ}$ . Can be installed safely in hot climates | Not suitable for use in high temperature regions due to short-term heat resistance                            |  |  |
| Applicative efects                      | Absorbs sunlight, no relection                                                                                                                    | Will Reflect a large amount of sunlight.May cause light pollution                                             |  |  |

#### **WARRANTY & CERTIICATE**

















Any quality problems will be repaired or Quality warranty in 5 years replaced if within the warranty period.

CE ROHS SGS 🖭 🐠







#### **OEM SHOW**

We have ability to make the solar panel in different specifications in accordance with clients project, any required samples are available in 7 days.

Such as the panels shape, material usage, size and the voltage, all can be customized







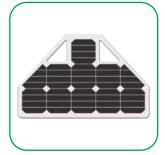


















#### **APPLICATIONS**

Flexible solar panel is more portable and thin, can be bended maximum 30 degree, and is widely mounted on RV, boat, cabin, tent, car, trucks, trailers or any other irregular surface









