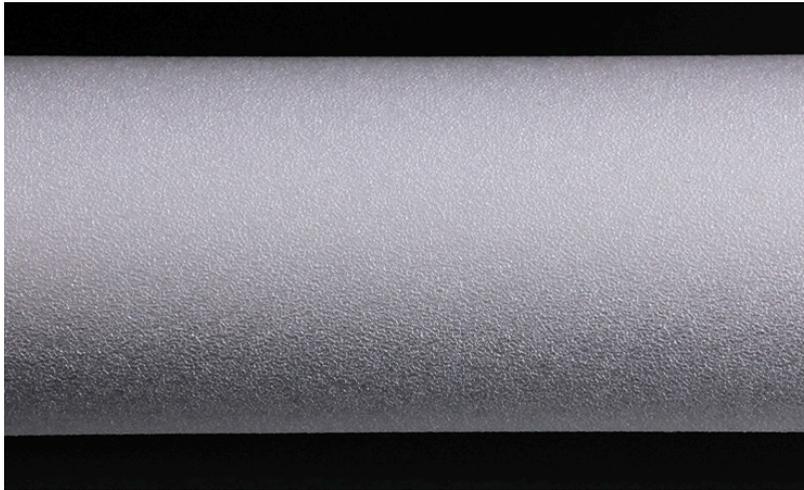


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POE

Item No.: 003

Adhering to scientific and technological innovation for development, the company has established a research and development team led by many doctors, and built a 1000 square meters research and development laboratory

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Description

Review

1.Product Introduction

The POE packaging film is made of polyolefin (POE) modified by adding additives. It is the second largest packaging material for photovoltaic modules after EVA film. It can be used for packaging crystalline silicon cells and thin film cells. It has excellent water vapor barrier, electrical insulation and PID resistance. It is very suitable for PID sensitive cells such as P-type

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PERC double-sided cells, N-type PERT double-sided cells IBC cells, and is especially suitable for frameless double-glass modules Single glass comp

The product has the following characteristics:

- A. It has lower water vapor transmittance;
- B. It has longer anti-PID performance;
- C. Excellent weather resistance (including high temperature, high humidity, ultraviolet, etc.), PID resistance;
- D. Excellent light transmittance to ensure maximum power of components
- E. Excellent stability and product compatibility;

The main models are: BJ-P20 high transmittance PID type, using glass surface, high transmittance in the ultraviolet region to improve the conv
BJ-P21 high cut-off anti-PID type, using the back plate surface, the low transmittance in the ultraviolet region effectively protects the back plate fro
service life of the module.

2.Product technical parameters

Performance	Model	
	BJ-P20	BJ-P21
Thickness (mm)	0.45-1.0	0.45-1.0
Width (mm)	≤1400	≤1400
Roll length(m)	150-350	150-350
Area density deviation(%)	±4	±4
Density(g/cm ³)	0.83-0.90	0.85-0.90
Crosslinking degree(%)	≥75	≥75
Tensile strength(MPa)	≥6	≥6
Elongation(%)	≥500	≥500
Water absorption (20°C、24h)	<5.0	<5.0
Peel strength from glass(N/cm)	≥60	≥60
Peel strength from backplane(N/cm)	≥40	≥40
Shrinkage(%)	Direction (MD)	≤3.0
	Broadwise (TD)	≤1.5
Volume resistivity(Ω·cm)	≥1*10 ¹⁵	≥1*10 ¹⁵
Breakdown voltage strength (kv/mm)	≥28	≥28
UV aging ΔYI (120kwh/m ² ,1000 h)	<5	<5
Damp-heat aging ΔYI (85°C/85%, 1000 h)	<5	<5

Your name*:

Your E-mail*:

Got a question?*

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Transmittance(%)	380-1100nm	≥91	≥91
	290-380nm	≥80	≤30

Your name*:

Anti-PID products:

The POE packaging film ZR-P20/ZR-P21 product is a new material anti-PID product. After using our anti-PID product, the components are tested. After 96 hours, the I-V characteristic curve and EL image of the components are tested.

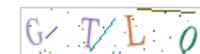
Your E-mail*:

I-V characteristic measurement results:

Manufacturer	Status	Isc (A)	Voc (V)	Pm (W)	FF (%)	PmRetention rate
Zhongrun	Prime	5.844	45.90	201.8	75.30	
	After 96 hours	5.853	45.80	201.0	75.00	99.60%

Got a question?*

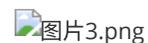
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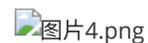
Isc: short-circuit current (A) Voc: Open voltage (V) FFCurve factor (%) Pm: Maximum output power(W)

diagram:

Before test:

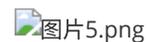


After 96 hours:

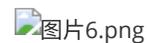


ELPortrait determination

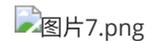
prime:



After 96 hours



3.Lamination process:



3.1.Single-cavity lamination parameters

Product model	Lamination temperature(°C)	Vacuum pumping time(s)	Holding pressure			Holding time
			one paragraph	Section II	three-section	
BJ-P20	145±2	360±30	-75	-45	-20	660-720
BJ-P21	145±2	360±30	-75	-45	-20	660-720

3.2.Double cavity lamination parameters

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Product model	First chamber temperature(°C)	Vacuum pumping time (s)	Holding pressure			Holding time	Second chamber temperature(°C)	Vacuum pumping time (s)	Holding pi
			one paragraph	Section II	three-section				
BJ-P20	120±2	360±30	-70	-50	-20	180±30	145±2	30±10	-70
BJ-P21	120±2	360±30	-70	-50	-20	180±30	145±2	30±10	-70

Note: According to the operation of the customer's equipment, the temperature and time of the laminator can be adjusted appropriately to meet crosslinking degree should be controlled within the acceptable range, and the POE packaging film should be controlled around 80%; Other auxiliary that have passed the inspection of an industry-recognized testing agency.

4.Storage and use:

- 1、 Store in a cool and dry constant temperature room with temperature ≤ 30 °C and humidity $\leq 60\%$; The storage period of this product is six months within three months;
- 2、 Vacuum packaging, inner packaging 150-350 m/roll (except for special requirements);
- 3、 The long-term stacking height of products is not easy to be too high, and it is better to store products below four layers to avoid bending and deformation caused by heavy pressure;
- 4、 Do not damp the product. It is recommended to use the plastic film after opening the package or cutting it within 48 hours;
- 5、 In order to avoid abnormal component lamination caused by static electricity, it is recommended to eliminate static electricity in the whole process of component production.

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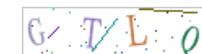
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