



太阳能电池背膜

SOLAR MODULE BACKSHEET

型号: TPT-3501

DuPont™ Tedlar® PVF Films



全面满足 UL Type1、IEC、Class A 防火等级要求

Fully meet fire resistance rating requirements of UL Type 1 and IEC Class A

产品特点 (TPT-3501)

1. 双面氟碳结构, 集成杜邦 Tedlar, 品牌驰名、性能可靠;
2. 优异的耐 UV 与抗老化特性;
3. 良好的电气绝缘与耐电压特性;
4. 背部局部放电电压大于 1500V;
5. 规格可按客户要求定制, 最大宽幅 1300mm。

FEATURES OF PRODUCTS (TPT-3501)

1. Double-side fluorocarbon structure(PVF/PET/PVF) with the integration OF Tedlar(DuPont).
2. Excellent UV resistance and aging resistance.
3. Good electrical insulation and breakdown.
4. Partial discharger voltage of the backsheet is higher than 1500V.
5. Made-to-order backsheet with width up to 1300mm.



● PVF

● Adhesive

● PET

● Adhesive

● PVF



TPT-3501 性能指标 (PVF//PET//PVF) TECHNICAL DATA OF TPT-3501

| 项目 Item | | 数值 Value | 单位 Unit | 引用标准 Quoted Standard |
|--|--|---|----------------------|----------------------|
| 背膜厚度 Film Thickness | 标称厚度 Nominal thickness | 342 | μm | GB/T13542.2-2009 |
| | 标称公差 Nominal tolerance | ± 5% | - | - |
| 抗张强度 Tensile strength (MD) | | 164 | N/m m ² | GB/T13542.2-2009 |
| 抗张强度 Tensile strength(TD) | | 172 | N/m m ² | GB/T13542.2-2009 |
| 断裂伸长率 Elongation at break (MD) | | 155 | % | GB/T13542.2-2009 |
| 断裂伸长率 Elongation at break (TD) | | 127 | % | GB/T13542.2-2009 |
| 收缩率 Shrinkage 150°C30min(MD) | | 0.81 | % | GB/T13542.2-2009 |
| 收缩率 Shrinkage 150°C30min(TD) | | 0.04 | % | GB/T13542.2-2009 |
| 层间剥离强度 PVF//PET) inner-layer adhesion | | >5 | N/10mm | GB/T2790-1995 |
| 与 EVA 粘接强度 (初始) Peeling strength with EVA(initial) | | 68 | N/10mm | GB/T2790-1995 |
| 击穿电压 Breakdown voltage | | 22.5 | KV | GB/T13542.2-2009 |
| 局部放电电压 Partial Discharge | | >1500 | VDC | GB/T60664-1-2007 |
| 水蒸汽透过率 Moisture Vapor Transmission Rates | | 1.73 | g/ m ² ·d | GB/T26253-2010 |
| 耐湿热老化试验 Damp-heat testing (85°C85%RH,2000h)(85°C85%RH,2000h) | | 不分层、不起泡 Δ≤ b2 No delamination , no bubble | - | IEC 61215-2005 |
| 紫外预处理 UV pretreatment(15kwh) | | 不分层、不起泡、不褶皱 Δ≤ b2 No delamination, bubble or fold | - | IEC 61215-2005 |
| Super UV(65°C65%RH,60kwh) | | 不分层、不起泡 Δ≤ b2 No delamination, no bubble | - | GB/T16422.2-2014 |
| 沸水处理 (沸水煮 24h) Boiling water treatment (boiled for 24h) | 外观检查 Visually inspect | 不分层、不起泡、不褶皱、无脱落、无粉化 No delamination, bubble or fold. No peeling or no powdering | - | GB/T17748-2008 |
| | 层间剥离强度 PVF//PET) inner-layer adhesion | >5 | N/10mm | GB/T9286-1998 |
| 冷热循环处理 (-40°C~85°C,6h/ 周期, 200 周期) TC200 | 外观检查 Visually inspect | 不分层、不起泡、不褶皱 No delamination, bubble or fold | - | IEC 61215-2005 |
| | 击穿电压 Breakdown voltage | ≥ 16 | KV | GB/T13542.2-2009 |
| 冷热循环 50 后湿冻处理 (-40°C~85°C,85%24h/周期, 10 周期) HF10after TC50 | 外观检查 Visually inspect | 不分层、不起泡、不褶皱 No delamination, bubble or fold | - | IEC 61215-2005 |
| | 击穿电压 Breakdown voltage | ≥ 16 | KV | GB/T13542.2-2009 |
| 耐酸 / 碱性 Acid/Alkali resistance | | 不分层、不起泡 No delamination, No bubble | - | GB/T17748-2008 |
| 耐盐雾性 Salt spray resistance | | 不分层、不起泡 No delamination, No bubble | - | GB/T2423.17-2009 |