



太阳能电池背膜

SOLAR MODULE BACKSHEET

型号: TFB-40

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 (TFB-40)

1. 双面氟碳结构, 集成杜邦 Tedlar, 大金 ZEFFLE、中来 FFC 氟碳技术, 品牌驰名、性能可靠;
2. FFC 氟碳内涂层技术更易于组件返修, 不脱层;
3. FFC 氟碳内涂层厚度 10 μm, 耐紫外性能优异, 组件不黄变;
4. 背部局部放电电压空气中测试大于 1500V;
5. 规格可按客户要求定制, 最大宽幅 1300mm。

FEATURES OF PRODUCTS (TFB-40)

1. Double-side fluorocarbon structure (PVF/PET/FFC) with the integration OF Tedlar(DuPont),ZEFFLE(DAIKIN) and FFC(Jolywood).
2. FFC fluorocarbon inner coating technique makes it easier for module rework, no delamination.
3. The thickness of FFC fluorocarbon inner coating is 15 μm, excellent UV resistance and no yellowing.
4. Partial discharger voltage of the backsheet is higher than 1500V (test in air)
5. Made-to-order backsheet with width up to 1300mm.



● PVF

● Adhesive

● PET

● FFC



TFB-40 性能指标 (PVDF//PET//FFC) TECHNICAL DATA OF TFB-40

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	395	μm	GB/T13542.2-2009
	标称公差 Nominal tolerance	± 5%	-	-
抗张强度 Tensile strength(TD)		171	N/m m ²	GB/T13542.2-2009
抗张强度 Tensile strength(TD)		183	N/m m ²	GB/T13542.2-2009
断裂伸长率 Elongation at break (MD)		163	%	GB/T13542.2-2009
断裂伸长率 Elongation at break (TD)		141	%	GB/T13542.2-2009
收缩率 Shrinkage 150°C30min(MD)		0.54	%	GB/T13542.2-2009
收缩率 Shrinkage 150°C30min(TD)		0	%	GB/T13542.2-2009
层间剥离强度 (PVF//PET) inner-layer adhesion		4.5	N/10mm	GB/T2790-1995
与 EVA 粘接强度 (初始) Peeling strength with EVA(initial)		80	等级 grade	GB/T2790-1995
与 EVA 粘接强度 Peeling strength with EVA(85° C85%RH,1000h)		76	N/10mm	GB/T2790-1995
击穿电压 Breakdown voltage		23.9	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		1.58	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
	涂层附着力 Coating adhesion	0	等级 grade	GB/T9286-1998
	层间剥离强度 Inner-layer adhesion	>5	N/10mm	GB/T2790-1995
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) HF10(after 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
落砂耐磨性 Falling abrasive resistance		159.1 (标准砂粒径 Standard sand diameter:0.25-0.65mm)	L	GB/T23988-2009

注: 以上数值为典型值 Remark: The above data are typical values.