

dnpSolar Back Sheet: FM1



dnpSolar Back Sheet materials are designed to provide long lifetime to photovoltaic modules. The dnpSolar Back Sheet PV-BS FM1 is a laminated film composite made of a layer of PET and a layer of SiOx-PET.

This sandwich results in a good quality product in terms of reliability and UV stability

Photovoltaic modules laminated with dnpSolar Back Sheet's materials have been successfully tested by several module manufacturers and satisfy with external certification institutes.

PV-BS FM1	Test method	Unit	Test Conditions	Value
> Material Properties Material Composition				PET/SiOx-PET
> Basic Properties Colour Thickness	JIS-K7130	mm		White 0,07
> Physical Properties Tensile Strength	UL746A + ISO 527-3 JIS-K7127 + ASTM D 882-09	MPa		150
Tensile Elongation	UL746A + ISO 527-3 JIS-K7127 ASTM D 882-09	%		100
Water Vapor Permeability Thermal Shrinkage	JIS-K7129 JIS-C2151	g/(m ² *day) %	40°C , 90% RH 150°C, 30 min.	0.20 MD = 1,0 / TD = 0,2
> Electrical Properties Breakdown Voltage	ASTM D 149 + IEC60243-1	kV		> 20
Partial Discharge Voltage	IEC60664-1	VDC		> 1000
> Adhesion Properties Adhesion Strength to (EVA)	UL746A + ISO 527-3 JIS-K7127 + ASTM D 882-09	N/15mm	150°C, 15 min.	≥ 30
> Flameability Properties Maximum Flame Spread Index	ASTM E 162a			Passed test
> UV Properties UV Resistance	UL746C			Passed test

This information does not represent a specification.

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dnpSolar is a business unit within dnp denmark focussing on servicing the European market for Solar energy. dnpSolar is thus a part of Dai Nippon Printing Co. Ltd. (DNP), the worlds largest general printing company and the direct link to the DNP Energy Division where all development and manufacturing of materials for solar cells take place. Established in 1876, with more than 40.000 employees and with net-sales of more than 14 billion EUR, DNP has a proven track record of constant development and ground braking innovations in multiple business areas. Within recent years DNP has invested heavily in the development of components for green energy manufacturing including high-tech plastic sheets for solar cells. dnpSolar will market these product on the European market on behalf of DNP.