



SOLAR PANEL (POE) ENCAPSULANT SHEET

'POE' encapsulant sheets are UV, weather-resistant and fast cure encapsulant that can be used for all kinds of PV solar modules

PROPERTY	UNITS	TEST METHOD	TYPICAL TEST VALUES	
Film Grade	-	-	POE FCP HLT	POE FCP UVB
Emboss Type	-	Visual	Orange-Peel	Orange-Peel
Thickness	mm	ASTM D6988	0.55±5%	0.55±5%
Width	mm	Scale	As specified +5/-0	As specified +5/-0
Yield	Grams/sq. m	-	390 +/- 5%	390 +/-5%
Tensile strength	MPa	ASTM D638	≥10	≥10
Tensile strain	%	ASTM D638	>500	>500
Adhesion to glass	N/cm	ASTM D903	>60	-
Adhesion to back sheet	N/cm	ASTM D903	-	>60
Water absorption	g/m ² .24h	ASTM F1249	<0.5	<0.5
Gel content	%	Soxhlet method	>75	>75
Thermal shrinkage (MD)	%	160 deg on glass plate for 5 minutes	<3	<3
Thermal shrinkage (TD)	%	160 deg on glass plate for 5 minutes	<2	<2
Optical transmittance (380 to 1100 nm)	%	ASTM E424	≥91	≥91
Optical transmittance (290 to 380 nm)	%	ASTM E424	≥80	<30
UV cut off wavelength	nm	ASTM E424	-	360
Di electric strength	kV/mm	ASTM D149	>25	>25
Volume resistivity	Ohm.cm	ASTM D257	>1x10 ¹⁵	>1x10 ¹⁵
Lamination Parameters				
Evacuation Time	Minutes	-	4 to 5	4 to 5
Lamination Time	Minutes	-	7 to 9	7 to 9
Temperature (Single Stage)	°C	-	140 to 145	140 to 145
Temperature (Double Stage)	°C	-	145 to 150	145 to 150
Storage and Packing Details				
Storage Conditions	Store in sealed packing at temperature < 30°C & humidity < 60%			
Shelf Life	Recommended to use within 9 months from the date of manufacture			
Packing	Length/roll: 150 meters Each roll is wrapped with a protective film in a corrugated box			

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