



# Sustain POE



Low Shrinkage



Low WVTR  
(Water Vapour Transmission Rate)



Embossed Surface



Virtually Zero Thermal Creep in  
Glass-Glass Modules



PID free and anti-snail trails

**Sustain POE** encapsulant provides comprehensive protection and embedding of the solar cell to ensure a long life for solar modules. Sustain POE is a UV and weather - stable Polyolefin Elastomer (POE). PV Encapsulant which is proven for single-stage as well as Short-cycle multi-stage lamination processes. This Encapsulant can be used for all types of crystalline and thin film modules.

Outstanding  
light  
transmittance

Strong  
adhesive  
ability

Excellent  
durability

Outstanding  
material  
compatibility

Easy  
to  
use

Bubble  
free  
lamination



# SOLAR PANEL (POE) ENCAPSULANT SHEET

'POE encapsulant sheets are UV, weather stable and ultra-fast cure POE PV Encapsulant that can be used for all kinds of PV Solar modules.

PROPERTIES	UNIT	TEST METHOD	TYPICAL TEST VALUES			
Film Grade	-	-	POE FCP HLT	POE FCP UVB	POE FCP HLT	POE FCP UVB
Cell size Compatibility	-	-	M3/M6	M3/M6	M10/M12	M10/M12
Emboss Type	-	Visual	Orange-Peel	Orange-Peel	Orange-Peel	Orange-Peel
Thickness	mm	ASTM D6988	0.5±5%	0.5±5%	0.65±5%	0.60 ±5%
Width	mm	Scale	Specified +5/-0mm	Specified +5/-0mm	Specified +5/-0mm	Specified +5/-0mm
Yield	Grams /sq. m	-	375 +/- 5g	375 +/-5g	490 +/- 5g	450 +/-5g
Shore Hardness	Shore A	ASTM D2240	60 TO 70	60 TO 70	60 TO 70	60 TO 70
Tensile strength	Mpa	ASTM D638	>6	>6	>6	>6
Tensile strain	%	ASTM D638	>500	>500	>500	>500
Adhesion to glass	N/cm	ASTM D903	>60	-	>60	-
Adhesion to back sheet	N/cm	ASTM D903	-	>40	-	>40
Water absorption	%	ISO 62-200805	<0.1	<0.1	<0.1	<0.1
Thermal shrinkage (MD)	%	160 deg on glass plate for 5 minutes	<3	<3	<2	<2
Thermal shrinkage (TD)	%	160 deg on glass plate for 5 minutes	<2	<2	<1	<1
Optical transmittance	%	ASTM E424	>90	>90	>90	>90
UV cut off wavelength	nm	ASTM E424	-	360	-	360
Comparative Tracking Index	volts	IEC 60112:2003	>600	>600	>600	>600
Di electric strength	kV/mm	ASTM D149	>25	>25	>28	>28
Volume resistivity	Ohm.cm	ASTM D257	>1x10 <sup>15</sup>	>1x10 <sup>15</sup>	>1x10 <sup>15</sup>	>1x10 <sup>15</sup>

## SUGGESTED LAMINATION PARAMETERS

Evacuation Time	Minutes	4 to 5	4 to 5	4 to 5	4 to 5
Lamination Time	Minutes	7 to 9	7 to 9	7 to 9	7 to 9
Temperature (Single Stage)	°C	138 to 142	138 to 142	138 to 142	138 to 142
Temperature (Double Stage)	°C	140 to 145	140 to 145	140 to 145	140 to 145

## 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 : As per requirement Each roll is wrapped with a protective film in a corrugated box

**Note:** The technical information is based on random sampling and data information herein refers to typical values. Since conditions of product use are beyond our control, we make no warranties and assume no liability in connection with any use of this information. Navitas Alpha Renewables Pvt. Ltd. disclaim any liability for loss or damage incurred in connection with the use of this product.



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