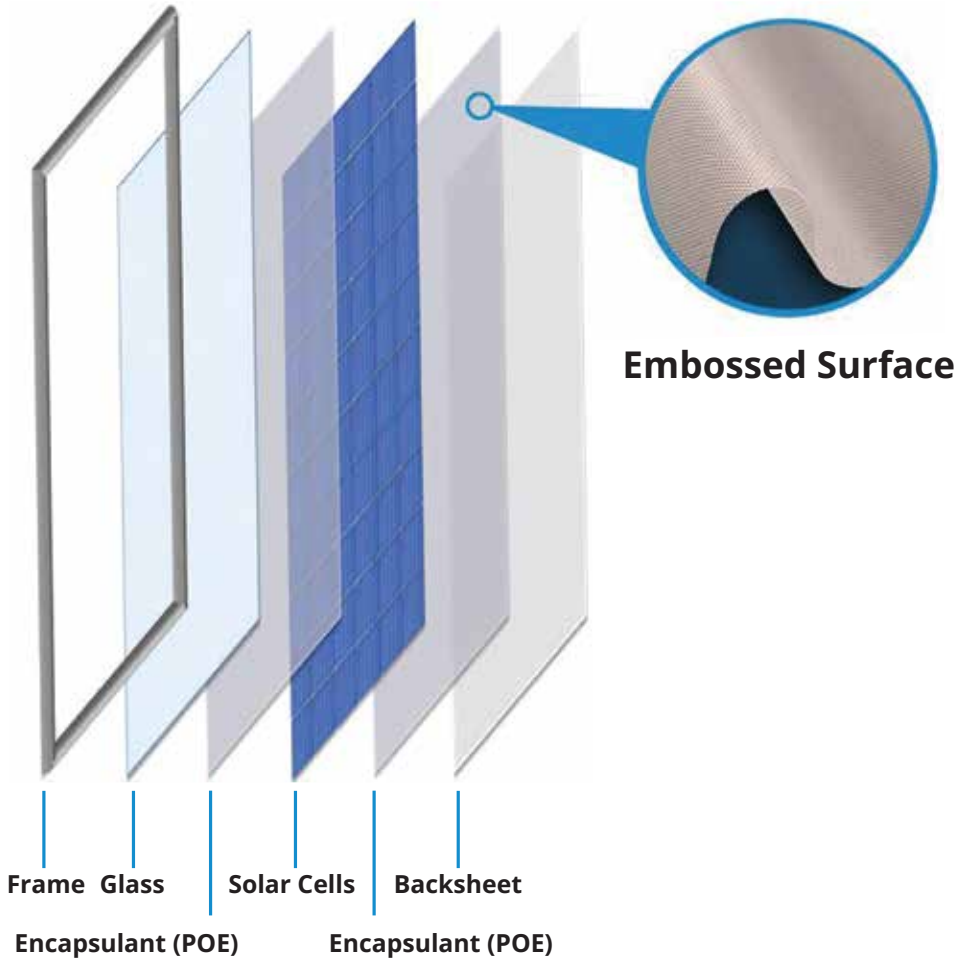


CONSERV E

POE Encapsulant



CONSERV E-360 & CONSERV E - UVT' is a Polyolefin Elastomer based Encapsulant, UV stable and weather stable, specially designed to suit Glass-to-Glass and Glass-to-Backsheet PV Modules with high efficiency PV Cells specially HJT.

On accounts of its innovative formulation, it combines and balances critical features of POE and TPO Encapsulants to cover wide range of PV Module designs uniquely. It allows PV Modules comprising blue-light sensitive cells of a given efficiency to generate higher power.

UL Certified. Refer File No. E353124

PROPERTIES - CONSERV E 360

Particulars	Test Method	Unit	Values
Thickness	ASTM D 6988	Mm	Value \pm 10%
Grammage	ASTM D 646	g/m ²	Value \pm 5%
Width	Scale	Mm	Up to 1500 \pm 5
Melting Point	ISO 11357 - 3	$^{\circ}$ C	65 \pm 10 $^{\circ}$ C
Surface type	Visual	Unit	Textile \ Orange Peel \ Pyramid
Tensile Strength	ASTM D 882	MPa	12 \pm 5
Tensile Strain	ASTM D 882	%	\geq 600
Shore Hardness	ASTM D 2240	Shore - A	65 \pm 5
Water Absorption	ISO 62 - 2008	%	\geq 0.1
Adhesion to Glass	ASTM D 903	N/cm	\geq 70
Adhesion to Backsheet	ASTM D 903	N/cm	\geq 70
Thermal Shrinkage @120 $^{\circ}$ c 3 min	ISO 11501-1995	%	MD <3, TD <1
Optical Transmittance	IEC 62788-1- 4	%	\geq 91
UV Cut Off Wavelength	IEC 62788-1- 4	nm	360 \pm 30
Volume Resistivity	IEC 62788-1-2	Ohm.cm	\geq 1x10 ¹⁵
Gel Content	IEC 62788-1-6	%	50-80
Lamination Parameters	Single Stage	Double Stage (Stage 1)	Double Stage (Stage 2)
Evacuation Time (Minute)	6 - 10	5 - 7	
Lamination Time (Minute)	12 - 16	2 - 4	8 - 10
Temperature ($^{\circ}$ C)	140 - 160	140- 155	

- Temperature and Vacuum to be uniformly maintained across the laminator. #Periodic calibration of the machine input parameters to be done by Machine user.
- Lamination parameters change with increased width of Encapsulant/Module and/or increased thickness of Encapsulant and the same has to be re-tuned to arrive at acceptable results.
- With higher thickness of Encapsulant, there could be marginal loss in Transparency.
- Storage Condition and Shelf Life: Store in undamaged original packaging, temperature between 20 $^{\circ}$ C to 30 $^{\circ}$ C and relative humidity < 60%. Recommended use within 9 months from date of manufacture.
- It is recommended to use; after opening the package within 8 hours.

PROPERTIES - CONSERV E UVT

Particulars	Test Method	Unit	Values
Thickness	ASTM D 6988	Mm	Value \pm 10%
Grammage	ASTM D 646	g/m ²	Value \pm 5%
Width	Scale	Mm	Up to 1500 \pm 5
Melting Point	ISO 11357 - 3	°C	65 \pm 10°C
Surface type	Visual	Unit	Textile \ Orange Peel \ Pyramid
Tensile Strength	ASTM D 882	MPa	12 \pm 5
Tensile Strain	ASTM D 882	%	\geq 600
Shore Hardness	ASTM D 2240	Shore - A	65 \pm 5
Water Absorption	ISO 62 - 2008	%	\geq 0.1
Adhesion to Glass	ASTM D 903	N/cm	\geq 70
Adhesion to Backsheet	ASTM D 903	N/cm	\geq 70
Thermal Shrinkage @120°C 3 min	ISO 11501-1995	%	MD <3, TD <1
Optical Transmittance	IEC 62788-1- 4	%	\geq 91
UV Cut Off Wavelength	IEC 62788-1- 4	nm	Transparent
Volume Resistivity	IEC 62788-1-2	Ohm.cm	\geq 1x10 ¹⁵
Gel Content	IEC 62788-1-6	%	50-80
Lamination Parameters	Single Stage	Double Stage (Stage 1)	Double Stage (Stage 2)
Evacuation Time (Minute)	6 - 10	5 - 7	
Lamination Time (Minute)	12 - 16	2 - 4	8 - 10
Temperature (°C)	140 - 160	140- 155	

- Temperature and Vacuum to be uniformly maintained across the laminator. #Periodic calibration of the machine input parameters to be done by Machine user.
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PACKING: Unless specified, below is the standard packing of 'CONSERV'

Length/Roll: 240 or 300 linear metre & 10% LM variation

No. of Rolls/Pallet: 4 & 6, In vertical form.

Total Linear Metres/Pallet: 960 or 1800

Each roll is sealed in a protective bag and all rolls covered using corrugated sleeve / Outer Box

Boxes are strapped on suitable pallets

Note: The above technical information represents the typical range of properties and is believed to be correct as on date. However, this data should not be used to establish specification limits or used as basis for design. Lamination parameters and Quality of other components of the laminate during module manufacturing impact on the overall performance of the module, and hence we recommend the user to carry out intensive trials to test suitability of this product and module laminating conditions.

RenewSys gives no warranty and assumes no liability in connection with any use of this information and is subject to the RenewSys general terms and conditions.



CONSERV®

E 360 - POE

Encapsulant