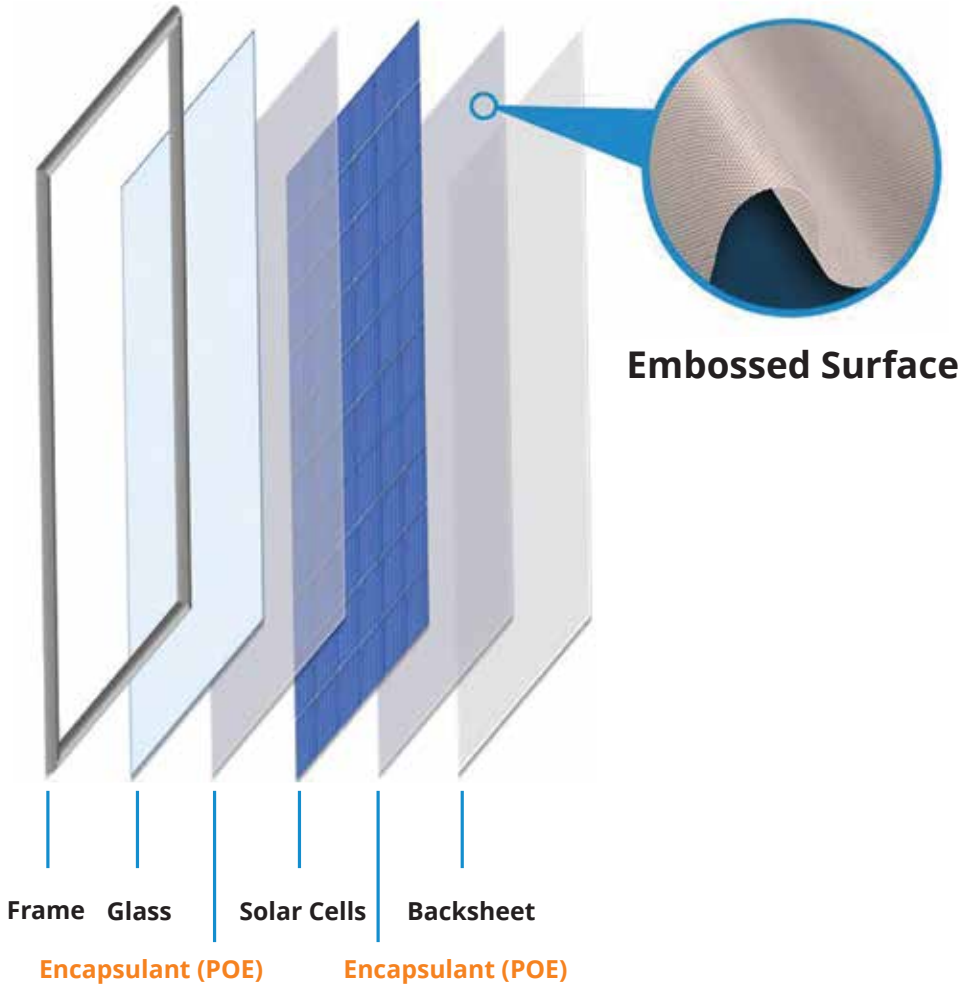


# CONSERV E

## POE Encapsulant



'CONSERV E - 360 & CONSERV E - UVT' is a Polyolefin 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 HIT.

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 - 08	mm	0.45 - 0.65 ± 5%
Width	Scale	mm	Up to 1300
Melting Point	ISO 11357 - 3	°C	76 ± 2
Surface type	Visual	Unit	Inside: Matt; Outside: Embossed Supplied without Masking Paper
Tensile Strength	ASTM D 638	MPa	12 ± 3
Tensile Strain	ASTM D 638	%	≥ 500
Shore Hardness	ASTM D 2240	Shore - A	70 ± 5
Water Absorption	ISO 62 - 200805	%	≤ 0.1
Adhesion to Glass	ASTM D 903	N/cm	≥ 70
Adhesion to Backsheet	ASTM D 903	N/cm	≥ 70
Thermal Shrinkage	160°C, 5 min. on Glass Plate	%	≤ 2
Thermal Creep	90°C @ 250 hrs	mm	≤ 1
Optical Transmittance	ASTM E 424	%	≥ 91
UV Cut Off Wavelength	ASTM E 424	nm	360
Volume Resistivity	ASTM D 257	Ohm.cm	≥ 1x10 <sup>16</sup>
Gel Content	Soxhlet Method	%	50 - 80
<b>Lamination Parameters</b>	<b>Single Stage</b>	<b>Double Stage (Stage 1)</b>	<b>Double Stage (Stage 2)</b>
Evacuation Time (Minute)	6 - 10	3 - 4	
Lamination Time (Minute)	12 - 16	2 - 4	7 - 9
Temperature (°C)	150 - 165	150 - 165	

- \*Temperature and #Vacuum to be uniformly maintained across the laminator. #Vacuum to be applied at -760 mm Hg, 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°C and 30°C and humidity between 50-60% RH. Recommended use within 9 months from date of manufacture.

### PROPERTIES - CONSERV E UVT

Particulars	Test Method	Unit	Values
Thickness	ASTM D 6988 - 08	mm	0.45 - 0.65 ± 5%
Width	Scale	mm	Up to 1300
Melting Point	ISO 11357 - 3	°C	76 ± 2
Surface type	Visual	Unit	Inside: Matt; Outside: Embossed Supplied without Masking Paper
Tensile Strength	ASTM D 638	MPa	12 ± 3
Tensile Strain	ASTM D 638	%	≥ 500
Shore Hardness	ASTM D 2240	Shore - A	70 ± 5
Water Absorption	ISO 62 - 200805	%	≤ 0.1
Adhesion to Glass	ASTM D 903	N/cm	≥ 70
Adhesion to Backsheet	ASTM D 903	N/cm	≥ 70
Thermal Shrinkage	160°C, 5 min. on Glass Plate	%	≤ 2
Thermal Creep	90°C @ 250 hrs	mm	≤ 1
Optical Transmittance	ASTM E 424	%	≥ 91
UV Cut Off Wavelength	ASTM E 424	nm	UV Transparent
Volume Resistivity	ASTM D 257	Ohm.cm	≥ 1x10 <sup>16</sup>
Gel Content	Soxhlet Method	%	50 - 80
<b>Lamination Parameters</b>	<b>Single Stage</b>	<b>Double Stage (Stage 1)</b>	<b>Double Stage (Stage 2)</b>
Evacuation Time (Minute) <sup>#</sup>	6 - 10	3 - 4	
Lamination Time (Minute)	12 - 16	2 - 4	7 - 9
Temperature (°C)	150 - 165	150 - 165	

- \*Temperature and #Vacuum to be uniformly maintained across the laminator. #Vacuum to be applied at -760 mm Hg, 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: 100 metres | # No. of Rolls/Pallet: 9 or 12 |

# Total Linear Metres/Pallet: 900 or 1200

# Each roll is sealed in a protective bag in a corrugated 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**

E - POE - 04/2022/1

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