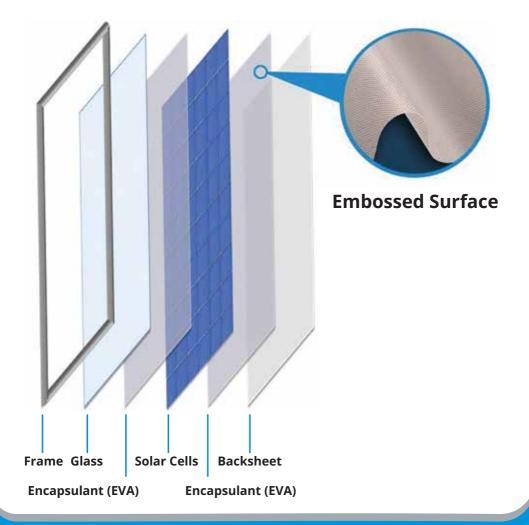


EVA Encapsulant (Anti-Acid)





'CONSERV AA 360 - 14FC' is a wide process window curable, UV stable and weather stable & with acid scavenger, Increase PV module life span. Anti-Acid Ethyl Vinyl Acetate (EVA) PV Encapsulant proven for single stage as well as short cycle multi stage lamination processes. This Encapsulant can be used for all Crystalline and many Thin - Film PV Modules. It has standard UV cut off wavelength.

'CONSERV AA UVT - 14 FC' is a wide process window curable, UV and weather stable UV transparent & & with acid scavenger, Increase PV module life span. Anti-Acid Ethyl Vinyl Acetate (EVA) PV Encapsulant used as top layer towards the glass for all Crystalline PV Modules. It allows PV Modules comprising blue - light sensitive PV Cells of a given efficiency, to generate higher power.

CONSERV AA - 14 FC

EVA Encapsulant (Anti-Acid)



PROPERTIES - CONSERV AA 360 - 14 FC

| Particulars | Test Method | Unit | | Values |
|---------------------------------------|---------------------------------|------------------------|-----|---|
| Thickness | ASTM D 6988 - 08 | mm | 0.4 | 5 - 0.65 ± 5% |
| Width | Scale | mm | | Up to 1300 |
| Melting Point | ISO 11357 - 3 | °C | | 70±2 |
| Surface type | Visual | Unit | | itt; Outside: Embossed without Masking Paper |
| Tensile Strength | ASTM D 638 | MPa | | 15±3 |
| Tensile Strain | ASTM D 638 | % | | ≥600 |
| 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 | | ≥100 |
| Thermal Shrinkage | 160ºC, 5 min. on Glass Plate | % | | ≤2 |
| Optical Transmittance | ASTM E 424 | % | | ≥91 |
| UV Cut Off Wavelength | ASTM E 424 | nm | | 360 |
| Refractive Index | ISO 489 | | | 1.48 |
| Dielectric Strength | ASTM D149 | kV/mm | | ≥25 |
| Volume Resistivity | ASTM D 257 | Ohm.cm | | ≥1x10 ¹⁴ |
| Gel Content | Soxhlet Method | % | | ≥80 |
| Lamination Parameters | Single Stage | Double Stage (Stage 1) | | Double Stage (Stage 2) |
| Evacuation Time (Minute) [#] | 4 - 7 | 4 - 6 | | |
| Lamination Time (Minute) | 7 - 10 | 2 - 4 | | 6 - 9 |
| Temperature (°C) [*] | 130 - 150 | 135 - 150 | | |

• *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.

BENGALURU: +91-80-33671400 | MUMBAI: +91-22-68100500 www.renewsysworld.com |renewsys@renewsysindia.com

CONSERV AA - 14 FC

EVA Encapsulant (Anti-Acid)



PROPERTIES - CONSERV AA UVT - 14 FC

| Particulars | Test Method | Unit | | Values |
|---------------------------------------|---------------------------------|------------------------|-----|---|
| Thickness | ASTM D 6988 - 08 | mm | 0.4 | 5 - 0.65 ± 5% |
| Width | Scale | mm | | Up to 1300 |
| Melting Point | ISO 11357 - 3 | °C | | 70±2 |
| Surface type | Visual | Unit | | itt; Outside: Embossed without Masking Paper |
| Tensile Strength | ASTM D 638 | MPa | | 15±3 |
| Tensile Strain | ASTM D 638 | % | | ≥600 |
| 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 | | ≥100 |
| Thermal Shrinkage | 160ºC, 5 min. on Glass Plate | % | | ≤2 |
| Optical Transmittance | ASTM E 424 | % | | ≥91 |
| UV Cut Off Wavelength | ASTM E 424 | nm | | 360 |
| Refractive Index | ISO 489 | | | 1.48 |
| Dielectric Strength | ASTM D149 | kV/mm | | ≥25 |
| Volume Resistivity | ASTM D 257 | Ohm.cm | | ≥1x10 ¹⁴ |
| Gel Content | Soxhlet Method | % | | ≥80 |
| Lamination Parameters | Single Stage | Double Stage (Stage 1) | | Double Stage (Stage 2) |
| Evacuation Time (Minute) [#] | 4 - 7 | 4 - 6 | | |
| Lamination Time (Minute) | 7 - 10 | 2 - 4 | | 6 - 9 |
| Temperature (°C) [*] | 130 - 150 | 135 - 150 | | |

• *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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CONSERV AA - 14 FC

EVA Encapsulant (Anti-Acid)



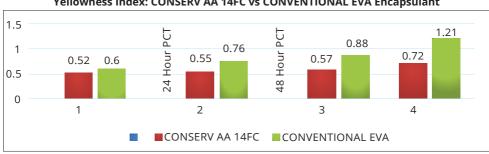
PACKING: Unless specified, below is the standard packing of 'CONSERV'

Length/Roll: 140 or 150 metre | # No. of Rolls/Pallet: 9 or 13

Total Linear Metres/Pallet: 1600 or 1620

Each roll is sealed in a protective bag in 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.



Yellowness Index: CONSERV AA 14FC vs CONVENTIONAL EVA Encapsulant



A - 14 FC - 02/2022/1

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