



**Dr. HANS WERNER®
CHEMIKALIEN**

'Solar Encapsulates EVA, POE, EPE Films'

Dr. HANS WERNER CHEMIKALIEN® EVA (Ethylene Vinyl Acetate) FILM For Encapsulating Solar PV Panels

EU307 & ET306 ULTRA FAST CURE

PRODUCT SPECIFICATION



High Tensile Strength



Excellent Transparency



Outstanding Adhesion



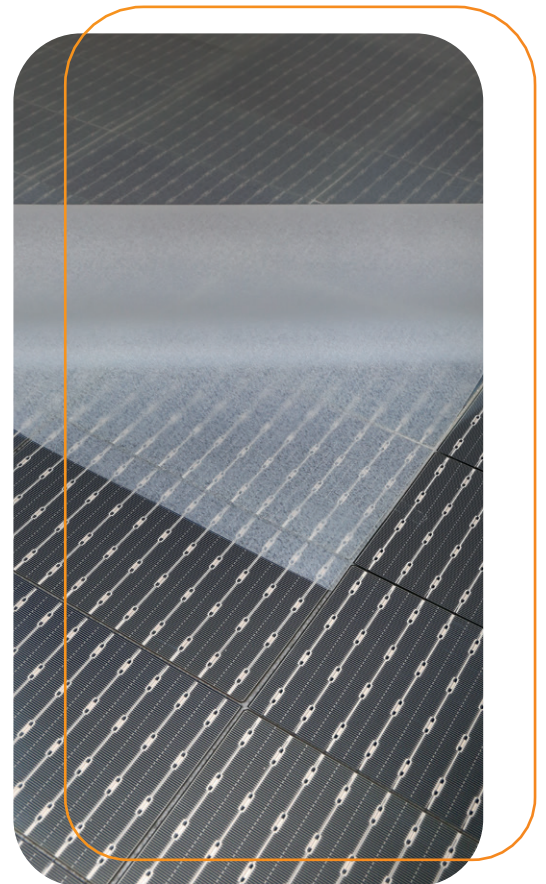
UV Protection



Snail Trail Protection



**Excellent Weatherability and
Long Term Reliability**



Technical Specification (Dr. HWC-EU307 - ET306 Ultra Fast Cure)

Properties	Unit	Test Method	Value	
			ET306	EU307
Total Thickness (Tolerance: $\pm 0.05\%$)	mm	UPS method	0.40 ~ 0.90	
Total Width	mm	Scale	Up to 1300	
VA Content	%	UPS Method	28	28
Thermal Shrinkage (MD)	%	On solar glass (5 min, 125°C)	≤ 3	≤ 3
Thermal Conductivity	W/(m.K)	ISO 2207-4	0.27	0.27
Shore Hardness	Shore A	ASTM D 2240	70 \pm 5	70 \pm 5
Melting Point	°C	ASTM D3417	70 \pm 2	70 \pm 2
Degree of Cross-linking (Gel Content)	%	Soxhlet Method Lamination (10 min, 145°C)	≥ 85	≥ 85
Adhesion to Glass (With Backsheet)	N/cm	ASTM D 903	≥ 80	≥ 80
Adhesion to Backsheet	N/cm	ASTM D 903	≥ 70	≥ 70
Ultimate Elongation (Cured)	%	ASTM D 638	≥ 400	≥ 400
Tensile Strength (Cured)	MPa	ASTM D 638	≥ 10	≥ 10
Transmission (@550nm)	%	ASTM E424	≥ 91	≥ 91
UV Cut-off Wave Length	nm	UPS Method	UV transparent	360
Dielectric Strength	kV/mm	ASTM D 149	≥ 25	≥ 25
Refractive Index	-	ISO 489	1.48	1.48
Water Absorption (Cured)	%	ISO 62-200805	≤ 0.1	≤ 0.1
Volume Resistivity (Cured)	$\Omega \cdot \text{cm}$	ASTM D 257	$\geq 1 \cdot 10^{15}$	$\geq 1 \cdot 10^{15}$

Lamination Recipe

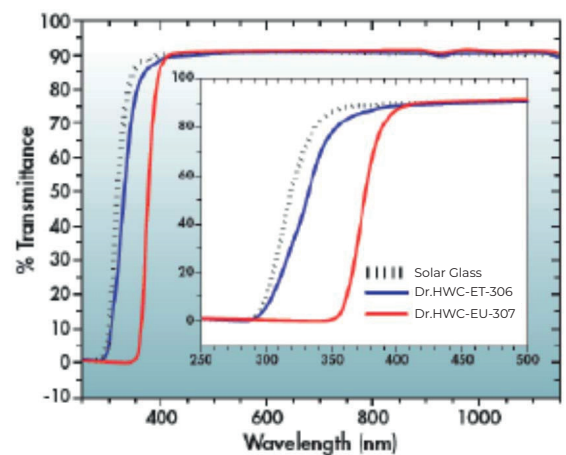
Lamination Parameters	Unit	Single Chamber	Double Chamber
Temperature	°C	145 - 150	140 - 145
Vacuum Time	min	3 - 4	3 - 4
Lamination Time	min	6 - 8	6 - 8

Note 1: Customers can adjust to appropriate lamination parameters according to different equipment or process.

Note 2: It is recommended to use it up within 48 hours after opening of the original packing.

Note 3: These are typical laboratory values that may change depending on the cure conditions as well as the test conditions and methods.

Light Transmittance Curve



UL Certified. Refer File Number: E531674