

Ethylne Vinyl Acetate Encapsulants

E46 Ultra Fast Cure Series



Greater Aesthetics & Fewer Misalignments.



PID Resistant



High Luminous Transmittance



Snail Trail Resistant



Faster Lamination Cycle



Better Bonding with Glass and Backsheet



Broad Melting Temperature Range

E49 Fast Cure Series

Trusted and Certified



Technical Specification (E46 HL1 UC & E46 UV2 UC)

PHYSICAL DATA

Properties	Unit	Test Method	E46 HL1 UC	E46 UV2 UC
Thickness	mm	ASTM D - 6988-08	0.45 - 0.65 ± 5%	0.45 - 0.65 ± 5%
Grammage	gsm	IS7016 Pt-1	390 - 600	390 - 600
Width	mm	Scale	Up to 1300mm	Up to 1300mm
Length/Roll	LM	Scale	150 - 600	150 - 600
Density	g/cc	ASTM D 792	0.95 - 0.96	0.95 - 0.96

THERMAL DATA

Properties	Unit	Test Method	E46 HL1 UC	E46 UV2 UC
Thermal Shrinkage	%	On solar glass, 160°C, 5 minutes	≤ 2	≤ 2
Melting Point	°C	ISO 11357-3	70 ± 2	70 ± 2

CHEMICAL DATA

Properties	Unit	Test Method	E46 HL1 UC	E46 UV2 UC
Gel Content	%	Soxhlet Method	≥ 80	≥ 80
Water Absorption	%	ISO 62-200805	≤ 0.1	≤ 0.1

PID

Properties	Unit	Test Method	E46 HL1 UC	E46 UV2 UC
Power loss of PV Module (Glass+EVA+Cell+EVA+BS) 85C, 85% RH, -1000Vdc @ 96hrs	%	IEC 62804 (IEC 61215)	< 2	< 2

LAMINATION PARAMETERS

Lamination Parameters	Unit	Single Chamber	Double Chamber
Temperature	°C	145-150	130 - 145
Vacuum Time	min	4-5	3-4
Lamination Time	min	6-8	6-8

Storage Condition: To be stored in sealed packing at temperature < 30 °C & Humidity < 60 %

Shelf life: It is recommended to use within 9 months from the date of manufacture

MECHANICAL DATA

Properties	Unit	Test Method	E46 HL1 UC	E46 UV2 UC
Adhesion to Backsheet	N/cm	ASTM D 903	≥ 70	≥ 70
Adhesion to Glass (With Backsheet)	N/cm	ASTM D 903	≥ 80	≥ 80
Shore Hardness	Shore A	ASTM D 2240	70 ± 5	70 ± 5
Ultimate Elongation	%	ASTM D 638	≥ 600	≥ 600
Tensile Strength	Mpa	ASTM D 638	12 ± 3	12 ± 3

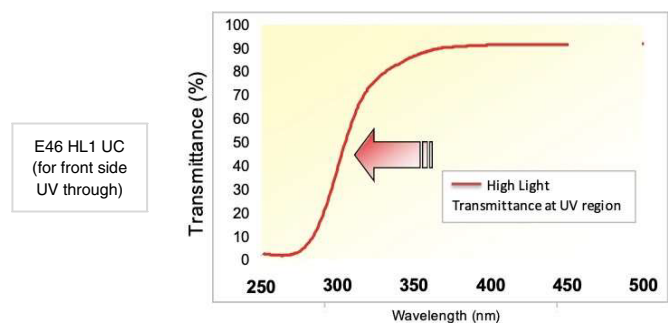
OPTICAL DATA

Properties	Unit	Test Method	E46 HL1 UC	E46 UV2 UC
Optical Transmittance	%	ASTM E424	≥ 91	≥ 91
UV Cut-off	nm	ASTM E424	--	360
Refractive Index	-	ISO 489	1.48	1.48

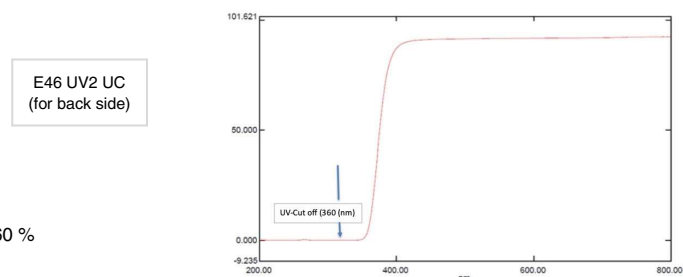
ELECTRICAL DATA

Properties	Unit	Test Method	E46 HL1 UC	E46 UV2 UC
Dielectric strength	KV/mm	ASTM D 149	≥ 25	≥ 25
Volume Resistivity	Ω*cm	ASTM D 257	≥ 1*10 ¹⁵	≥ 1*10 ¹⁵
Comparative Tracking Index	Voltage	IEC 60112:2020	> 600	> 600

TRANSMITTANCE GRAPH



E46 HL1 UC (for front side UV through)



E46 UV2 UC (for back side)