

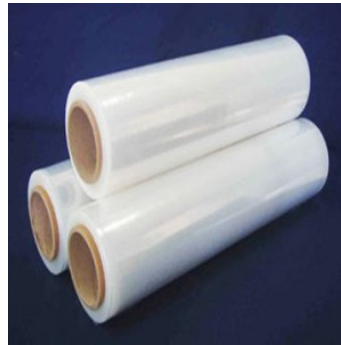
PhotoMark® XL-POE Datasheet

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OVERVIEW

Photomark® XL-POE is an ultra fast cure and PID resistant thermoset polyolefin encapsulant with HLT™ higher light transmission in the UV wavelength region to allow greater power generation with blue light sensitive photovoltaic devices.

Photomark® XL-POE is intended for applications in any crystalline silicon photovoltaic module construction and for many thin film photovoltaic designs. It is also provided as rolled film ready for use in thermal lamination processes. The material is self-priming for adhesion to glass.



TECHNICAL CHARACTERISTICS

Compatible with most EVA lamination cycles	Minimal power loss after 4000 hrs. damp heat
Excellent adhesion retention to glass and backsheet through damp heat exposure	Low shrinkage for defect-free laminations
No acetic acid	PID-Free & Superior UV Resistance

TYPICAL PROPERTIES

PROPERTIES	TEST METHOD	UNITS:	CONDITION	RESULTS
Tensile Strength	D638	MPa	23°C, 250 mm/min elongation rate	12
Ultimate Elongation	D638	%	23°C, 250 mm/min elongation rate	1000
Shrinkage (unrestricted)		%	150°C, 5 minutes	2
Damp Heat Resistance (85°C/85%RH)	IEC61215	ΔYI	2000 hrs.	0
MVTR	F1249	g/m ² /day	25°C/100sccm flow, 100%RH	2
Water Absorption	D570	wt%	23°C	<0.01
Optical Transmission	E424	%	23°C, 0.46 mm thickness	91
UV Cutoff Wavelength	E424	nm	23°C, 0.46 mm thickness	<300
Refractive Index	D542	-	23°C, 0.46 mm thickness	1.48

PROCESS GUIDELINES

VACUUM LAMINATION STEP		HEAT CURE CYCLE	
Nominal Temperature	145 - 150°C	Platen Temperature	150 - 170°C
Vacuum Range	< 60 mbar	Cure Time	8 min
Evacuation Time	4 min	Applied Bladder Pressure	910 mbar
		Target Temperature within the Encapsulant	140°C
		Time Above the Target Temperature	> 3min

*Theoretical nominal

This product is covered by one or more U.S. patents and pending U.S. and other patent applications.
Typical Data - Not Specification



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