



**Melinex®**  
polyester film

**Melinex® D243**

Melinex® D243 is a white opaque polyester film which has been specifically developed for use in backsheet laminates for crystalline silicon photovoltaic modules. It has improved resistance to hydrolysis compared to standard polyester films and excellent resistance to degradation by UV light. Melinex® D243 is available in a thickness of 50 micron.

**TYPICAL VALUES OF PROPERTIES**

Property	Test Method	Unit	Value
<b>General</b>			
Thickness	--	micron	52.5
Area Yield	--	m <sup>2</sup> /kg	13.1
Relative Density(at 23°C)	ASTM D 1505-68 (1975) (Modified to Melinex® test method)	--	1.45
<b>Thermal</b>			
Upper melt temperature	ASTM E794-85	°C	MD 255-260 TD
Shrinkage	150°C for 30 minutes	%	1.3 0.6
Coefficient of thermal expansion (between 20°C and 50°C)		1/K(cm/cm°C)	33x10 <sup>-6</sup> 32x10 <sup>-6</sup>
Specific Heat (at 25°C)		kJ/kg deg K cal/g dec c	1.3 0.32
<b>Mechanical</b>			
Tensile strength at break	ASTM D 882-75b (50µm film 23°C at 50%rh Strain rate 50%/min)	Kgf/mm <sup>2</sup>	MD 16.6 TD 20
Elongation at break	As above	%	160 116
<b>Optical Properties</b>			
Total Luminous Transmission	ASTM D1003-77 (Measured on Gardiner Hazemeter)	%	18
Whiteness	ASTM E313-79(Colourquest XE)		91
<b>Chemical Resistance</b>			
Dilute acids and alkalis	Good		
Concentrated alkalis	Poor		
Concentrated hydrochloric acid	Fair		
Concentrated sulphuric acid	Poor		
Grease, oils and fats	Good		
Organic solvents, alcohols and hydrocarbons	Good		
Ketones, esters and chlorinated compounds	Fairly good		
Phenols, cresols and chlorinated phenols	Poor		

**Food contact advice**

Meliex® D243 has not been assessed against European Food Contact Legislation

**Disposal**

Disposal of Melinex® D243 does not present special disposal problems. Where waste occurs in a clean, uncontaminated form it can be

recycled. In most circumstances, once Melinex® D243 has been laminated, coated, printed or metallised, incineration with Energy Recovery is the most environmentally efficient recovery route. Melinex® D243 can also be burned in an incinerator with normal refuse or can be buried as a relatively inert material in a landfill. The disposal method should comply with appropriate local and country regulations.

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'Caution: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, see "DuPont Teijin Films Medical Caution Statement", H-50102-3-DTF and H-50103-3-DTF.

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