Product Information

DuPont Teijin Films™

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

Proerty	Test Method	Unit	Value
General			
Thickness	--	micron	52.5
Area Yield	--	m2/kg	13.1
Relative Density(at 23°C)	ASTM D 1505-68 (1975) (Modified to Melinex® test method)	--	1.45
Thermal			MD TD
Upper melt temperature	ASTM E794-85	°C	255-260
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)	33x10-6 32x10-6
Specific Heat (at 25°C)		kJ/kg deg K cal/g dec c	1.3 0.32
Mechanical			MD TD
Tensile strength at break	ASTM D 882-75b (50µm film 23°C at 50%rh Strain rate 50%/min)	Kgf/mm2	16.6 20
Elongation at break	As above	%	160 116
Optical Properties			
Total Luminous Transmission	ASTM D1003-77 (Measured on Gardiner Hazemeter)	%	18
Whiteness	ASTM E313-79(Colourquest XE)		91
Chemical Resistance			
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 Fairly good		
Ketones, esters and chlorinated compounds	Poor		
Phenols, cresols and chlorinated phenols			

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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