

PRODUCT DATASHEET

LEXAN™ 80330 FILM

DESCRIPTION

LEXAN™ 80330 polycarbonate film offers a high heat resistance and excellent dimensional stability and impact performance, combined with superior optical properties for back printed, see through applications. The product offers clarity, excellent screen printability and ease of die cutting for appliance fascias.

TYPICAL PROPERTY VALUES*

PROPERTY	ASTM TEST	METHOD	UNITS (USCS)	VALUE	ISO TEST METHOD	UNITS (SI)	VALUE
MECHANICAL							
Tensile Strength @ Yield	ASTM D882		psi	8500	ISO 527	MPa	63
Ultimate	ASTM D882		psi	9000	ISO 527	MPa	65
Tensile Modulus	ASTM D882		psi	300000	ISO 527	MPa	>2000
Tensile Elongation at Break	ASTM D882		%	100-160	ISO 527	%	>100
Gardner Impact Strength at 0.03" (0.75 mm)	ASTM D3029		ft-lb	23	ISO 6603-1	J	31
Tear Strength							
Initiation	ASTM D1004		lb/mil	1.4-1.8		kN/m	245
Propagation	ASTM D1922		g/mil	30-55		kN/m	10-20
Puncture Resistance (Dynatup)	ASTM D3763		ft-lb	9		J	12
Fold Endurance (MIT)							
0.010" (0.25 mm)	ASTM D2176-69		double folds	N/A			
0.020" (0.50 mm)	ASTM D2176-69		double folds	40 (30 mil)			
THERMAL							
Coefficient of Thermal Conductivity	ASTM D5470		Btu/hr/ft2/°F/in	1.35		W/m²K	0.2
Coefficient of Thermal Expansion	ASTM E831		(x10⁻⁵/°F)	3.2	ISO 11359	(x10⁻⁵/°C)	7
Specific Heat @40°F (4°C)	ASTM E1269		Btu/lb/°F	0.3		KJ/Kg-°C	1.25
Glass Transition Temperature	ASTM D3417 / D3418		°F	307	ISO 11357	°C	148
Vicat Softening Temperature, B	ASTM 1525-00 modified		°F	323		°C	144
Heat Deflection Temp. by TMA at 1.8 Mpa			°F	290	ISO 75 Modified	°C	127
Brittleness Temperature	ASTM D746		°F	-211		°C	-135
PHYSICAL							
Density	ASTM D792		slug/ft³	2.3	ISO 1183	kg/m³	1200
Water Absorption, 24 hrs.	ASTM D570		% change	0.35	ISO 62	% change	0.35
Surface Roughness (RMS)	ASME B46-1		μ	NA			
Surface Energy	ASTM D5946-01		-	34			
Surface Tension	Dyne Pens		Dyne	>34			

PROPERTY	ASTM TEST	METHOD	UNITS (USCS)	VALUE	ISO TEST METHOD	UNITS (SI)	VALUE
OPTICAL							
Refractive Index @77°F (25°C)	ASTM D542A		-	1.6			
Light Transmission	ASTM D1003		%	91			
Yellowness Index	ASTM D1925		%	0.7			
Haze	ASTM D1003		%	0.4			
Gloss over Flat Black min/max @60°	ASTM D523-60		-	170	ISO 2813	-	170
UV% Transmission at 380 nm	UV/Visual Spectroscopy		%	14			

*These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local POLYVANTIS representative or the POLYVANTIS Quality Services Department.
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MANUFACTURING SPECIFICATIONS

NOMINAL GAUGE RANGES	MIN./MAX LIMIT OF NOMINAL
0.030-0.080" (0.750-1.50mm)	± 10%

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www.polyvantis.com/lexan

