POLYVANTIS

PRODUCT DATASHEET

LEXAN™ 8030 FILM

DESCRIPTION

LEXAN™ 8030 polycarbonate film offers excellent clarity in all thicknesses, high heat resistance, and superior dimensional stability for graphic art applications. Derived from one of the world's toughest polymers, Lexan 8030 film also provides a high gloss surface finish while meeting additional requirements for added UV stability and blocking of UV-A and UV-B wavelengths. Additional enhancements allow improved gauge control.

TYPICAL PROPERTY VALUES*

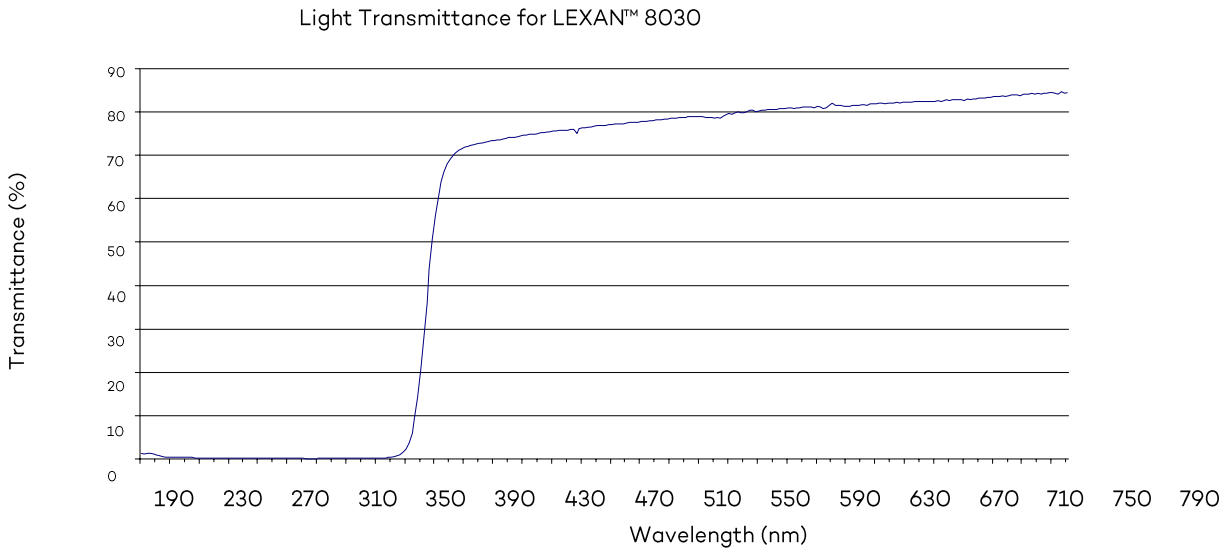
PROPERTY	ASTM TEST METHOD	UNITS (USCS)	VALUE	ISO TEST METHOD	UNITS (SI)	VALUE
MECHANICAL						
Tensile Strength @ Yield	ASTM D882	psi	8500	ISO 527	MPa	62
Ultimate	ASTM D882	psi	9000	ISO 527	MPa	65
Tensile Modulus	ASTM D882	psi	300000	ISO 527	MPa	2506
Tensile Elongation at Break	ASTM D882	%	100-153	ISO 527	%	100-154
Gardner Impact Strength at 0.03" (0.75	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	130			
0.020" (0.50 mm)	ASTM D2176-69	double folds	35			
THERMAL						
Coefficient of Thermal Conductivity	ASTM D5470	Btu/hr/ft^2/°F/in	1.35		W/m°K	0.20
Coefficient of Thermal Expansion	ASTM E831	(x10^{-5}/°F)	3.2	ISO 11359	(x10^{-5}/°C)	5.8
Specific Heat @40˚F (4˚C)	ASTM E1269	Btu/lb/°F	0.3		KJ/Kg-°C	1.25
Glass Transition Temperature	ASTM DM3417/ D3418	°F	307	ISO 11357	°C	153
Vicat Softening Temperature, B	ASTM 1525-00 modified	°F	323		°C	160
Heat Deflection Temp. by TMA at 1.8		°F	290	ISO 75	°C	145
Shrinkage at 302 ˚F (150˚C)	ASTM D1204	%	1.4		%	1.4
Brittleness Temperature	ASTM D746	°F	-211		°C	-135

PROPERTY	ASTM TEST METHOD	UNITS (USCS)	VALUE	ISO TEST METHOD	UNITS (SI)	VALUE
PHYSICAL						
Density	ASTM D792	$slug/ft^3$	2.3	ISO 1183	kg/m^3	1200
Water Absorption, 24 hrs.	ASTM D570	% change	0.35	ISO 62	% change	0.35
Surface Roughness (RMS)	ASME B46-1	-	NA			
Surface Energy	ASTM D5946-01	-	34			
Surface Tension	Dyne Pens	Dyne	38-40			
Pencil Hardness	ASTM D3363	-	b-hb			
Taber Abrasion	AST D1044	Delta Haze	28			
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	%	29			

- 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. Reported values are based on 0.500 mm (0.020") thickness film and are tested at machine direction unless otherwise noted.

MANUFACTURING SPECIFICATIONS

NOMINAL GAUGE RANGES	MIN./MAX LIMIT OF NOMINAL
0.007 - 0.10" (0.175-0.250mm)	± 10%
0.015 - 0.030" (0.375-0.750mm)	± 5%



POLYVANTIS

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LEXAN™ POLYCARBONATE FILM & SHEET Tough, Virtually Unbreakable

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