POLYVANTIS

PRODUCT DATASHEET

LEXAN™ 8060 FILM

DESCRIPTION

LEXAN™ 8060 polycarbonate film is a transparent optical film. The film offers excellent clarity and optical quality in all thickness, high heat resistance, and superior dimension stability for graphics art applications. Derived from one of the world's toughest polymers, LEXAN 8060MC also provides a high gloss surface finish while meeting additional requirement for gauge control and flatness

TYPICAL PROPERTY VALUES*

PROPERTY	ASTM TEST METHOD	UNITS (USCS)	VALUE	ISO TEST METHOD	UNITS (SI)	VALUE
MECHANICAL						
Tensile Strength @ Yield	ASTM D882	psi	8000	ISO 527	MPa	55
Ultimate	ASTM D882	psi	11000	ISO 527	MPa	77
Tensile Modulus	ASTM D882	psi	390000	ISO 527	MPa	2712
Tensile Elongation at Break	ASTM D882	%	86	ISO 527	%	86
Tear Strength						
Initiation	ASTM D1004	lb/mil	0.83-1.2		kN/m	49-207
Propagation	ASTM D1922	g/mil	32			
Puncture Resistance (Dynatup)	ASTM D3763	ft-lb	5.9		J	8.0
THERMAL						
Coefficient of Thermal Expansion						
CTE -20~100˚C, cross-flow	ASTM E831	($x10^{-5}$/°F)	5.0	ISO 11359	($x10^{-5}$/°C)	9.0
CTE -20~100˚C, inflow	ASTM E831	($x10^{-5}$/°F)	4.6	ISO 11359	($x10^{-5}$/°C)	8.4
Glass Transition Temperature	ASTM D3417 / D3418	°F	304	ISO 11357	°C	151
Heat Deflection Temp. by TMA at 1.8 MPa		°F	291	ISO 75 Modified	°C	144
PHYSICAL						
Density	ASTM D792	$slug/ft^3$	2.3	ISO 1183	kg/m^3	1190
Water Absorption, 24 hrs.	ASTM D570	% change	0.06	ISO 62	% change	0.06
Surface Roughness (RMS)	ASME B46-1	µm	0.01			
Surface Tension	Dyne Pens	Dyne	42-44			
Pencil Hardness (500g loading)	ASTM D3363	-	2B			
Taber Abrasion (500g, 100cycles)	ASTM D1044	delta Haze	35			
OPTICAL						
Refractive Index @77°F (25°C)	ASTM D542A	-	1.6			
Light Transmission	ASTM D1003	%	92			
Yellowness Index	ASTM D1925	-	<0.8			
Haze	ASTM D1003	%	<0.1			
Gloss over Flat Black min/max @ 60°	ASTM D523-60	-	111	ISO 2813	-	111

PROPERTY	ASTM TEST METHOD	UNITS (USCS)	VALUE	ISO TEST METHOD	UNITS (SI)	VALUE
ELECTRICAL						
Dielectric Constant						
@ 1.1 GHz	ASTM D150	-	2.8	IEC 60250	-	2.8
Dissipation Factor						
@ 1.1 GHz	ASTM D150	-	0.006	IEC 60250	-	0.006
Surface Resistivity	ASTM D257	Ω/square	1.6E+14	IEC 60093	Ω/square	1.6E+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. Reported values are based on 0.250 mm (0.010") film and are tested at machine direction unless otherwise noted.

MANUFACTURING SPECIFICATIONS

NOMINAL GAUGE RANGES	MIN./MAX LIMIT OF NOMINAL
0.004-0.007"(0.100-0.175mm)	± 10%
0.010-0.015" (0.250-0.375 mm)	± 5%
0.020-0.030" (0.500-0.750mm)	± 3%

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