



GE Structured Products

LEXAN® 8010V, 8020V, 8030V FILM

Product Data Sheet

DESCRIPTION

LEXAN® polycarbonate films offer excellent clarity in all thicknesses. High heat resistance and superior dimensional stability for graphic arts applications which require UL94 flammability performance. Derived from one of the world's toughest polymers, LEXAN film also provides high gloss surface finishes while meeting additional requirements for added UV stability. Recent technology improvements now in effect reduce color variation by 50%. Additional enhancements allow improved gauge control (see reverse side for details).

TYPICAL * PROPERTY VALUES

Property	Test Method	Units	Value (Clear & Textures)
PHYSICAL			
Specific Gravity	ASTMD792	—	1.24
Area Factor	Calculation	ft ² /lb/mil	155
Refractive Index @ 77°F	ASTMD542A	—	1.586
Light Transmission	ASTMD1003	%	90
Yellowness Index	ASTMD1925	—	<1.0
Water Absorption, Equilibrium, 24 Hrs	ASTMD570	%	0.35
MECHANICAL			
Tensile Strength @ Yield	ASTMD882	psi	8,500
Ultimate			9,000
Tensile Modulus	ASTMD882	psi	300,000
Elongation	ASTMD882	%	100-150
Gardner Impact Strength @ 30 mils	Gardner	in-lbs	120
Tear Strength			
Initiation	ASTMD1004	lb/mil	1.4-1.8
Propagation	ASTMD1922	g/mil	30-55
Burst Strength—Mullen @ 1 mil	ASTMD774	psig	40-45
Fold Endurance @ 10 mils	MIT	double folds	200
THERMAL			
Coefficient of Thermal Expansion	ASTMD696	in/in/°F	3.75 x 10 ⁻⁵
Coefficient of Thermal Conductivity	ASTMC177	Btu/hr/ft ² /°F/in	1.35
Specific Heat @ 40°F	ASTMC351	Btu/lb/°F	0.30
Strain Relief @ 275°F	ASTMD1204	%	<0.2
Tensile Heat Distortion @ 50 psi	ASTMD1637	°F	302
Brittle Temperature	ASTMD746	°F	-211
ELECTRICAL			
Dielectric Strength @ 72°F in Oil, Short Time, 10 mils	ASTMD149	V/mil	1,700
Dielectric Constant @ 60 Hz	ASTMD150	—	2.99
@ 1,000,000 Hz			2.93
Dissipation Factor @ 60 Hz	ASTMD150	—	.001
@ 1,000,000 Hz			.011
Volume Resistivity	ASTMD257	ohm-cm	10 ¹⁶
Surface Resistivity		ohm-sq	10 ¹⁵
Arc Resistance Tungsten Electrodes	ASTMD495	sec	120

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(continued on reverse)

*These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local GE Plastics Structured Products representative or the GE Plastics Structured Products Quality Services Department.

LEXAN

MANUFACTURING SPECIFICATIONS

The manufacturing guidelines presented here outline the quality standards to which GE Plastics produces its films. More stringent standards can be agreed to on a case-by-case basis, depending upon the requirements of a particular application or process. Such changes may result in a change in sales price or conditions.

For more information call: (800) 451-3147 or (413) 448-5400.

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GRAPHICS GRADE QUALITY • UV Stabilized*	8010V-112	0.005*** - 0.030"
STANDARD GRADE QUALITY • UV Stabilized* • Colors	8030V-112 8020V-112	0.005*** - 0.030" 0.010" - 0.030"

*LEXAN film should not, however, be exposed to direct sunlight for extended periods of time.
**.005" only available in 3 ft width only. Please contact Customer Service for availability.

PROPERTY	UNITS	LIMITS						
Light Transmission	%	88 minimum						
Haze	%	<1						
Gauge Variation	%	>20 mil Nominal ± 3% .010" - .015" Nominal ± 5% < .010" Nominal ± 10%						
Scratches (Reflected Light Conditions)	Inches	<1/4 Hairline, Buff Type						
Web Edge** Curl Machine Direction (MD) Transverse Direction (TD)	Inches	<table border="1"> <thead> <tr> <th></th> <th>MASKED</th> <th>UNMASKED</th> </tr> </thead> <tbody> <tr> <td>All gauges</td> <td>0.50 0.10</td> <td>0.25 0.10</td> </tr> </tbody> </table>		MASKED	UNMASKED	All gauges	0.50 0.10	0.25 0.10
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**Films from .015" to .030" in gauge may contain curl due to roll set. This property can be minimized by reverse winding the rolls approximately 48 hours prior to sheeting.

MASKING***

Stick	Free from creases and folds
Cling	Remains on film through sheeting process Easily removed in one continuous sheet

***Masking required on 8010 and 8030 (7 and 10 mils).

	GRAPHICS QUALITY	STANDARD QUALITY
	8010	8020, 8030, 8040
Visual Defects	All Gauges	All Gauges
Defect Size (inches)		
>.025	1/100 sq.ft.	4/100 sq.ft.
>.015	1/sq.ft.	4/sq.ft.
>.005	20/sq.ft.	40/sq.ft.

Flammability

Effective October 1988

Thickness	Rating
≥ 0.003" and ≤ 0.015" 0.015" and greater	UL94 VTM-2 UL94 V-2
File Number: E61257	



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