



GE Structured Products

LEXAN® 8010, 8020, 8030, 8040 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. 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	ASTM D792	—	1.20
Area Factor	Calculation	ft ² /lb/mil	160
Refractive Index @ 77°F	ASTM D542A	—	1.586
Light Transmission	ASTM D1003	%	90
Yellowness Index	ASTM D1925	—	<1.0
Water Absorption, Equilibrium, 24 Hrs	ASTM D570	%	0.35
MECHANICAL			
Tensile Strength @ Yield	ASTM D882	psi	8,500
Ultimate			9,000
Tensile Modulus	ASTM D882	psi	300,000
Elongation	ASTM D882	%	100-150
Gardner Impact Strength @ 30 mils	Gardner	in-lbs	120
Tear Strength			
Initiation	ASTM D1004	lb/mil	1.4-1.8
Propagation	ASTM D1922	g/mil	30-55
Burst Strength—Mullen @ 1 mil	ASTM D774	psig	40-45
Fold Endurance @ 10 mils	MIT	double folds	200
THERMAL			
Coefficient of Thermal Expansion	ASTM D696	in/in/°F	3.75 x 10 ⁻⁵
Coefficient of Thermal Conductivity	ASTM C177	Btu/hr/ft ² /°F/in	1.35
Specific Heat @ 40°F	ASTM C351	Btu/lb/°F	0.30
Strain Relief @ 275°F	ASTM D1204	%	<0.2
Tensile Heat Distortion @ 50 psi	ASTM D1637	°F	302
Brittle Temperature	ASTM D746	°F	-211
ELECTRICAL			
Dielectric Strength @ 72°F in Oil, Short Time, 10 mils	ASTM D149	V/mil	1,700
Dielectric Constant @ 60 Hz	ASTM D150	—	2.99
@ 1,000,000 Hz			2.93
Dissipation Factor @ 60 Hz	ASTM D150	—	.001
@ 1,000,000 Hz			.011
Volume Resistivity	ASTM D257	ohm-cm	10 ¹⁶
Surface Resistivity		ohm-sq	10 ¹⁵
Arc Resistance Tungsten Electrodes	ASTM D495	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

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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*	8010-112	0.005*** - 0.030"
STANDARD GRADE QUALITY • UV Stabilized* • Colors • FDA Approved/Non-UV Stabilized	8030-112 8020-112 8040-112	0.005*** - 0.030" 0.010" - 0.030" 0.005*** - 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</td> <td>0.25</td> </tr> <tr> <td></td> <td>0.10</td> <td>0.10</td> </tr> </tbody> </table>		MASKED	UNMASKED	All gauges	0.50	0.25		0.10	0.10
	MASKED	UNMASKED									
All gauges	0.50	0.25									
	0.10	0.10									

**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, 8030 and 8040 (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.

Effective October 1988



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