

## Lexan\* OQ Film

## Product Datasheet

### Description

Lexan\* OQ (optical quality) polycarbonate film offers excellent clarity, thermoformability and cleanliness which may be used for a wide variety of applications. Lexan OQ Film may display improved ripple performance versus standard T2FOQ Film. Available from .007" to .030" in 48" or 50" wide. Manufactured in a clean-room environment using optical quality Lexan resin, OQ Film has improved gauge tolerance and a selection of masking materials available for protection.

#### General Information

Operating Temperature: -40 to 265°F (-40 to 129°C)

Die cuts easily

### Typical Property Values ♦

Property	Test Method	Units	Value
<b>Physical</b>			
Specific Gravity	ASTM D792	--	1.20
Area Factor	Calculation	ft <sup>2</sup> /lb/mil m <sup>2</sup> /kg/mm	160 .833
Water Absorption, Equilibrium, 24 hrs.	ASTM D570	%	0.4
Resistance to Humidity	720 hrs @95°F. 100% R.H.	-	Pass
Refractive Index @ 77°F	ASTM D542A	--	1.586
Light Transmission	ASTM D1003	%	90
Yellowness Index	ASTM D1925	--	<1.0
<b>Mechanical</b>			
Tensile Strength	ASTM D882	psi	
@ Yield			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
<b>Electrical</b>			
Dielectric Strength	ASTM D149	V/mil	
@ 72 °F in Oil, Short Time, 10 mils			1,700
Dielectric Constant	ASTM D150	--	
@ 60 Hz			2.99
@ 1,000,000 Hz			2.93
Dissipation Factor	ASTM D150	--	
@ 60 Hz			.001
@ 1,000,000 Hz			.011
Volume Resistivity	ASTM D256	ohm-cm	10 <sup>16</sup>
Surface Resistivity		ohm-sq	10 <sup>15</sup>
Arc. Resistance, Tungsten Electrodes	ASTM D495	sec	120

♦ These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local SABIC Innovative Plastics, Specialty Film & Sheet representative or the SABIC Innovative Plastics, Specialty Film & Sheet Quality Services Department.

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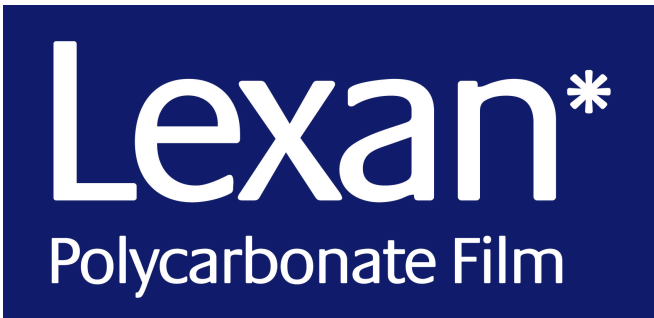
Lexan\*

**Manufacturing Guidelines**

The manufacturing guidelines presented here outline the quality standards to which SABIC Innovative Plastics, Specialty Film & Sheet 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.

Property	Units	Limits	
<b>Light Transmission</b>	%	90 Minimum	
<b>Haze</b>	%	<1	
<b>Gauge Variation</b>	%	.007", .008", .010" ± 5%	
		.012" - .030" ± 2.5%	
<b>Retardation</b>	nm	<300	
<b>Ripple</b>	Visual	.007" - .010" ≤ 5	
		.012" - .025" ≤ 8	
		.030" ≤ 8.5	
<b>Web Edge* Curl</b>	Inches	<u>Masked</u>	<u>Unmasked</u>
Machine Direction (MD)	All Gauges	0.50	0.25
Transverse Direction (TD)	All Gauges	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. Film may be ordered on 10" cores to minimize roll set.



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Americas:  
SABIC Innovative Plastics  
Specialty Film & Sheet  
One Plastics Avenue  
Pittsfield, MA 01201  
USA  
Tel. (1) (413) 448 7110  
Fax. (1) (413) 448 5573

Europe:  
SABIC Innovative Plastics  
Specialty Film & Sheet  
Plasticslaan 1  
NL - 4612 PX Bergen op Zoom  
The Netherlands  
Tel. (31) (164) 292911  
Fax. (31) (164) 292940

Pacific:  
SABIC Innovative Plastics  
Specialty Film & Sheet  
1468 Nanjin Road (W)  
26th Floor, United Plaza  
200040 Shanghai, China  
Tel. (86) 21 3222 4500  
Fax. (86) 21 6289 8998

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**Masking\***

<b>Stick</b>	Free from creases and folds
<b>Cling</b>	Remains on film through sheeting process. Easily removed in one continuous sheet.

# Masking required on OQ Film

**Standard Quality**

Visual Defects	All Gauges
<b>Defect Size (Inches)</b>	
>.025	0/sq. ft.
>.015	0.5/sq. ft.
>.005	3.75/sq. ft.