

## Description

Lexan\*SG3080B sheet is an optical bright light diffuser sign grade. This extruded polycarbonate sheet offers significant advantages over many other sign materials in terms of design freedom, aesthetics and weathering properties. It combines high impact resistance with light diffusion properties that provides excellent protection against vandalism, ensuring a positive corporate image. Lexan SG3080B sheet is available in optical bright opal white color with diffusion properties for uniform illumination and matte finish on the outside surface for reduced reflection and glare. Both surfaces of Lexan SG3080B sheet are UV-resistant giving excellent durability to outdoor weathering. Lexan SG3080B sheet is an excellent candidate for a variety of sign industry applications ranging from back lighted and pole mounted signs, through channel letters to projection screens and roller shutters for advertisements.

## Typical Property Values ♦

Property	Test Method	Unit	Value
<b>Physical</b>			
Specific Gravity	ASTM D792	--	1.20
Water absorption, 24 hours	ISO 62	mg	10
Water absorption, saturation /23°C	ISO 62	%	0.35
<b>Optical</b>			
Light transmission WH7C154X [at 0.177"]	ASTM-D1003	%	36
Light diffusion factor [at 0.177"]	DIN 5036	%	83
<b>Mechanical</b>			
Tensile stress at yield 50 mm/min	ASTM D638	MPa	60
Tensile stress at break 50 mm/min	ASTM D638	MPa	70
Tensile strain at yield 50 mm/min	ASTM D638	%	6
Tensile strain at break 50 mm/min	ASTM D638	%	120
Tensile Modulus 1 mm/min	ASTM D638	MPa	2300
Flexural stress at yield 2 mm/min	ASTM D790	MPa	90
Flexural Modulus 2 mm/min	ASTM D790	MPa	2300
<b>Impact</b>			
Charpy impact, notched	ISO 179/2C	kJ/m2	35
Izod impact, unnotched 23°C	ASTM D256A	kJ/m <sup>2</sup>	NB
Izod impact, unnotched -30°C	ASTM D256A	kJ/m <sup>2</sup>	NB
Izod impact, notched 23°C	ASTM D256A	kJ/m <sup>2</sup>	65
Izod impact, notched -30°C	ASTM D256A	kJ/m <sup>2</sup>	10
<b>Thermal</b>			
Vicat Softening Temperature, Rate B/120	ASTM D648	°C	145
HDT/ Ae, 1.8 MPa edgew. 120*1*04/sp=100	ISO 75/Be	°C	138
Thermal Conductivity	ISO 8302	W/m °C	0.2
Coeff. of Thermal Expansion extr. 23-80°C	ASTM D696	1/ °C	7.10-5
<b>Flammability</b>			
UL Flammability (.060" min.)	UL94		HB

♦ These property values have been derived from Lexan\* resin data for the material used to produce this sheet product. Variations within normal tolerances are possible for various colors. If minimum certifiable properties are required please contact your local SABIC Innovative Plastics representative. All values are measured at least after 48 hours storage at 23°C/50% relative humidity. All properties are measured on injection molded samples.

# Light transmission value and light diffusion may vary by + or -4 %.

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## Optical properties

Gauge / color grade	Light Transmission (%)	Diffusion Factor (%)
.093"/ WH7C154X	52 ± 4%	80
.118"/ WH7C154X	45 ± 4%	80
.150"/ WH7C154X	39 ± 4%	80
.177"/ WH7C154X	35 ± 4%	80
.236"/ WH7C154X	27 ± 4%	80

Lexan SG sheet is essentially opaque to all wave lengths below 385 nanometers. This useful shielding property prevent discoloration of second surface graphics applied to the reverse side.

## Product availability

Lexan\* SG3080B sheet is available in form of sheets as well as on economical spools, making it easy to cut into desired sizes.

### Sheets

**Gauge (inches):**  
.093, .118, .150, .177, .236

**Standard Sizes (inches):**  
Widths: 52, 64, 76, 100 web\*  
Length: 100

### Spools

**Gauge (inches):**  
.093, .118, .150, .177, .236

**Standard Sizes (inches):**  
Widths: 52, 64, 76, 100 web\*

Standard optical bright white color: **WH7C154X**

### Masking:

Top/matte side: co-ex white PE with no print, UL tape  
Bottom side: co-ex white PE with no print  
(note: no tape with "this side out", as SG3080B is 2 side UV protected)

## UV protection

Lexan SG3080B sheet has proprietary UV protected surfaces, giving excellent durability to outdoor weathering. The superior UV protected surface treatment is not affected by forming and fabricating and Lexan SG3080B sheet is therefore backed by a 10 years warranty# against yellowing, loss of light transmission and breakage.

# ) see warranty for details.



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