POLYVANTIS

PRODUCT DATASHEET

LEXAN™ SG305 OB SHEET

DESCRIPTION

LEXAN™ SG305 OB sheet is an optical bright opal white polycarbonate sheet with unique light diffusing properties while retaining a high light transmission. This both sides UV protected extruded polycarbonate sheet offers significant advantages over many other materials in terms of impact resistance, weathering properties, design freedom and aesthetics. LEXAN SG305 OB sheet is available in an optical bright opal white color with diffusion properties for uniform illumination and has a matt finish on the outside surface for reduced reflection and glare.
LEXAN SG305 OB is an excellent candidate for a variety of industry applications like:

- LED Back lighted signs
- Channel letters
- Lamp diffusers
- Projection screens
- Roller shutters with advertising features

TYPICAL PROPERTY VALUES*

PROPERTY	TEST METHOD	UNITS	VALUE
PHYSICAL			
Density	ISO 1183	g/cm³	1.20
Water absorption, 50% RH, 23 °C	ISO 62	%	0.15
Water absorption, saturation, 23°C	ISO 62	%	0.35
MECHANICAL			
Yield stress 50 mm/min	ISO 527	MPa	>60
Yield strain 50 mm/min	ISO 527	%	6
Nominal strain at break 50 mm/min	ISO 527	%	>100
Tensile modulus 1 mm/min	ISO 527	MPa	2300
Flexural strength 2 mm/min	ISO 178	MPa	90
Flexural modulus 2 mm/min	ISO 178	MPa	2300
IMPACT			
Charpy impact, notched 23°C, 3.0 mm	ISO 179/1eA	kJ/m²	75
Izod impact, unnotched 23°C, 3.0 mm	ISO 180/1U	kJ/m²	NB
Izod impact, notched 23°C, 3.0 mm	ISO 180/1A	kJ/m²	70
THERMAL			
Vicat softening temperature, B/120	ISO 306	°C	145
Temperature of deflection under load (type A), 1.8 MPa, flat	ISO 75-2	°C	127
Thermal conductivity	ISO 8302	W/m.°C	0.2
Coefficient of linear thermal expansion, 23-55°C	ISO 11359-2	1/°C	$7x10^{-5}$
Ball pressure test 125 ±2°C	IEC 60695-10-2	-	Pass

PROPERTY	TEST METHOD	UNITS	VALUE
ELECTRICAL			
Volume resistivity	IEC 60093	Ohm.cm	$>10^{15}$
Dielectric strength, in oil, 3.2 mm	IEC 60243-1	kV/mm	18
UL LISTING SHEET			
UL File# E539252			

*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") thickness film unless otherwise noted.
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OPTICAL PROPERTIES

GAUGE / COLOR	LIGHT TRANSMISSION	DIFFUSION FACTOR
2 MM / WH7C154X	52 ± 4%	0.8
3 MM / WH7C154X	44 ± 4%	0.8
4 MM / WH7C154X	37 ± 4%	0.8
5 MM / WH7C154X	31 ± 4%	0.8
6 MM / WH7C154X	27 ± 4%	0.8

UV PROTECTION

LEXAN SG305 OB 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 SG sheets are therefore backed by a 10-year warranty against yellowing, loss of light transmission and breakage.

PRODUCT AVAILABILITY

Product code: LEXAN™ SG305 OB Sheet
Gauge range: 2-6mm
Standard size**:** 2050 x 3050 mm / 1250 x 2050
Colors: WH7C154X

Standard optical bright white color: WH7C154X
Masking: Top/matte side: co-ex opal white PE with print Bottom side: co-ex transparent PE
LEXAN SG sheet is essentially opaque to all wave lengths below 385 nanometers. This useful shielding property prevent discoloration of posters placed behind the LEXAN sheet, second surface graphics and lacquers applied to the reverse side.

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LEXAN™ POLYCARBONATE FILM & SHEET Tough, Virtually Unbreakable
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