

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/cm ³	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 179/1C	kJ/m ²	75
Izod impact, unnotched 23°C, 3.0 mm	ISO 180/1U	kJ/m ²	NB
Izod impact, notched 23°C, 3.0 mm	ISO 180/1A	kJ/m ²	70
Thermal			
Vicat softening temperature, rate 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	7x 10 ⁻⁵
Ball pressure test 125 ±2°C	IEC 60695-10-2	-	Pass
Electrical			
Volume resistivity	IEC 60093	Ohm.cm	>10 ¹⁵
Dielectric strength, in oil, 3.2 mm	IEC 60243-1	kV/mm	18
Fire Ratings			
Electrical			
Glow Wire Flammability Index	IEC-60695-2-12	%	Pass 850C (3mm)

- ◆ 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. All samples are prepared according to ISO 294.
- ™ Trademarks of SABIC.

PRODUCT DATASHEET

LEXAN™ SG305-OB Sheet

OPTICAL PROPERTIES

Gauge / color grade	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
5 mm/ WH9DO46X	51 ± 4%	0.62

LEXAN SG-OB 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.

PRODUCT AVAILABILITY

LEXAN™ SG305-OB sheet is available in form of sheets as well as on economical spools, making it easy to cut into desired sizes.

Sheets

Gauge: 2, 3, 4, 5, 6 mm

Size: 2050 x 3050/1250 x 2050

Spools

Gauge: 2+3MM

Only available in full web size 2120MM

Production: Italy

Standard optical bright white color: WH7C154X

Masking: Top/matte side: co-ex opal white PE with print Bottom side: co-ex transparent PE

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 years warranty[#] against yellowing, loss of light transmission and breakage.

[#]) see warranty for details.

Americas

Headquarters

SABIC Innovative Plastics
One Plastics Avenue
Pittsfield, MA 01201
USA
T +1-413-448-7125
Toll-free: 1-800-323-3783
F +1 (888) 443-2033
sfscustomerservice@sabic-ip.com

European

Headquarters

SABIC Innovative Plastics
Plasticslaan 1
4612 PX
Bergen op Zoom
The Netherlands
T +31 164 293684
F +31 164 293272
Sfs.info@sabic-ip.com

Pacific

Headquarters

SABIC Innovative Plastics
Specialty Film & Sheet
1266 Nanjing Road (W)
16th Floor, Plaza 66
200040 Shanghai
China
T +86 21 62881088 ext. 6733
F +86 21 6288 0818

E-mail

sfscustomerservice@sabic-ip.com



* Trademark of SABIC Innovative Plastics IP BV

THE MATERIALS, PRODUCTS AND SERVICES OF SABIC INNOVATIVE PLASTICS HOLDING BV, ITS SUBSIDIARIES AND AFFILIATES ("SELLER"), ARE SOLD SUBJECT TO SELLER'S STANDARD CONDITIONS OF SALE, WHICH CAN BE FOUND AT <http://www.sabic-ip.com> AND ARE AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION OR RECOMMENDATION CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SELLER MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING SELLER'S PRODUCTS, SERVICES OR RECOMMENDATIONS. EXCEPT AS PROVIDED IN SELLER'S STANDARD CONDITIONS OF SALE, SELLER SHALL NOT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS PRODUCTS OR SERVICES DESCRIBED HEREIN. Each user is responsible for making its own determination as to the suitability of Seller's products, services or recommendations for the user's particular use through appropriate end-use testing and analysis. Nothing in any document or oral statement shall be deemed to alter or waive any provision of Seller's Standard Conditions of Sale or this Disclaimer, unless it is specifically agreed to in a writing signed by Seller. No statement by Seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Seller or as a recommendation for the use of such product, service or design in a manner that infringes any patent or other intellectual property right.

SABIC Innovative Plastics is a trademark of SABIC Holding Europe BV

™ Trademark of SABIC.

sabic-ip.com/sfs