POLYVANTIS

PRODUCT DATASHEET

LEXAN™ EXELLDPOB SHEET

DESCRIPTION

LEXAN™ EXELLDPOB sheet is an optical bright opal white polycarbonate sheet with unique light diffusing properties while retaining 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™ EXELLDPOB sheet is available in an optical bright opal white color with diffusion properties for uniform illumination and has a polished/polished surface. LEXAN™ EXELLDPOB sheet 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, 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		TM	
Volume resistivity	IEC 60093	Ohm.cm	>1015
Dielectric strength, in oil, 3.2 mm	IEC 60243-1	kV/mm	18
FIRE RATINGS			
Electrical			
Glow Wire Flammability Index	IEC-60695-2-12	°C	Pass 850°C (3mm)

* These property values have been derived from LEXAN™ resin data for the material used to produce this sheet product. Variation within normal tolerances is possible for various colors. If minimum certifiable properties are required, please contact your local POLYVANTIS, Specialty Film & Sheet 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.

OPTICAL PROPERTIES

GAUGE / COLOR GRADE	LIGHT TRANSMISSION (%)	SHGC*
2mm/ WH7D136O	55 ± 4%	0.66
3mm/ WH7D136O	47 ± 4%	0.63
5mm/ WH7D136O	36 ± 4%	
6mm/ WH7D136O	31 ± 4%	

*These are typical values

UV PROTECTION

LEXAN™ EXELLDPOB 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™ EXELLDPOB sheets are therefore backed by 10 years limited warranty# against yellowing, loss of light transmission and breakage.

#See warranty for details.

PRODUCT AVAILABILITY

LEXAN™ EXELLDPOB sheet is normally manufactured in the standard sizes listed below:

Standard gauges : 2mm, 3mm, 5mm, 6mm
Size : 1220mm x 30500mm
Masking : LEXAN™ printed masking on top, clear masking on bottom
Color : WH7D136O

Please contact our local India sales office commercial team member for further information on other gauges, custom sizes and the additional cost associated with it.

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