

LEXAN™ H6000 SHEET


PRODUCT DATASHEET

DESCRIPTION

LEXAN™ H6000 sheet is a high modulus, non-Chlorinated and non-Brominated compliant flame retardant opaque polycarbonate based sheet range available in standard and custom colors. In addition to good flammability performance, it offers excellent impact resistance, good stiffness and strength and ease of processing, making it an excellent candidate for a wide variety of applications in industries such as electrical/electronics and transportation (e.g. rail, bus).

TYPICAL PROPERTY VALUES

PROPERTY	TEST METHOD	UNITS	VALUE
PHYSICAL			
Density	ISO 1183	g/cm ³	1.28
Water absorption, 50% RH, 23 °C	ISO 62	%	0.1
Water absorption, saturation, 23°C	ISO 62	%	0.3
MECHANICAL			
Yield stress 50 mm/min	ISO 527	MPa	>60
Yield strain 50 mm/min	ISO 527	%	4
Nominal strain at break 50 mm/min	ISO 527	%	50
Tensile modulus 1 mm/min	ISO 527	MPa	3300
Flexural strength 2 mm/min	ISO 178	MPa	100
Flexural modulus 2 mm/min	ISO 178	MPa	3350
THERMAL			
Vicat softening temperature, B/120	ISO 306	°C	114
Temperature of deflection under load (type A), 1.8 MPa, flat	ISO 75	°C	89
OPTICAL			
Light transmission 3 mm	ASTM-D1003	%	n/a
FIRE RATINGS			
Rail			
France	NF P 92-501	-	M1 (2mm)
France	NF F 16-101	-	F2 (2mm)
Poland	PN-K-02512	-	R1 (2mm)
Electrical			
UL Listing sheet: E45329			

 Typical values only. Variations within normal tolerances are possible for the various textures.
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PROCESSING

LEXAN™ H6000 sheet is ideally suited to thermoforming. Sandwich type heating systems give the best results. Lexan H6000 sheet has a forming temperature range of 160 - 200°C. When forming, a draft angle of at least 3° should be allowed, and post mold shrinkage of 0.4 – 0.6% taken into account.

PRE-DRYING

It is important to ensure that Lexan H6000 sheets are free of moisture prior to thermoforming. A hot air circulating oven set at 100°C is recommended. Pre-drying is advised based on 2 hours/mm thickness.

ASSEMBLING

Parts made from Lexan H6000 sheet can be assembled with plastics, metals, rubber and other materials using many types of adhesive bonding, welding and mechanical fastening techniques. Since some of these materials can cause environmental stress cracking, please consult SABIC Functional Forms representative for advice on specific applications.

PAINTING

LEXAN H6000 sheet is ideally suited for use with a wide variety of modern decoration techniques. A list of approved paint systems and suppliers is available upon request.

CHEMICAL RESISTANCE

LEXAN H6000 sheet has sufficient resistance to most mineral oils, greases, aliphatic hydrocarbons and acids under low or moderate stress levels. In applications where the LEXAN H6000 sheet will come into contact with aggressive chemicals, specific (application related) testing is always advised. Effective painting systems can improve chemical resistance.

PRODUCT AVAILABILITY

Product code: LEXAN™ H6000

Textures: Polished/Suede (H6006), Polished/Haircell (H60011N)

See product availability guide for available gauges, sizes, and colors.

SAFETY

The processing guidance given in this documentation is given in good faith and the trust that in all cases you wear the correct Personal Protective Equipment (PPE), e.g. helmet, proper gloves, safety goggles etc. to safely fabricate, e.g. (but not limited to) sawing, cutting, forming our sheets and films. In all cases you should follow local and national regulations around the wear of PPE's prescribed or mandatory to perform these tasks in a safely manor.

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