

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	Unit	Value
Physical			
Specific Gravity	DIN 53479	-	1.27
Water Absorption, Equilibrium, 23°C	ISO62	%	0.3
Mechanical			
Tensile Strength, yield	ISO 527	MPa	60.3
Yield		%	3.6
Break		%	47.2
Modulus		MPa	3320
Flexural Modulus	ISO 178	MPa	3350
Flexural Stress (3.5% strain)	ISO 178	MPa	90.4
Izod Notched Impact	ASTM D256		
23°C		J/m	111
-20°C		J/m	72
Unnotched Impact	ASTM D4812		
23°C		J	3781
-40°C		J	2583
Dynatup Impact, 4.4mm	ASTM D3763		
23°C		J	66.1
-40°C		J	7.88
Thermal			
HDT/Be, 0.45 MPA Edgew120*10*4 sp=100mm	ISO 75/Be	°C	99
HDT/Ae, 1.8 MPA Edgew120*10*4 sp=100mm	ISO 75/Ae	°C	89
Vicat Softening Temperature, Rate B/120	ISO 306	°C	114
Thermal Conductivity	ISO 8302	°C	0.3W/m
Mold Shrinkage, flow, 3mm	GE Test	%	0.4-0.6
Flammability			
UL Flammability	UL94	mm	V0 (1.5 mm)
NF F 92-505, Fire		mm	M1 (2mm)
NF F 16-101, Smoke Density/Toxicity		mm	F2 (2mm)

◆ These property values have been derived from Lexan* resin data for the material used to produce this sheet product.

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Processing

Lexan* H6000 sheet is ideally suited to thermoforming. It offers high, deep draw ratios, equal wall thickness distribution, and it can be formed into complex shapes using standard thermoforming equipment. Sandwich type heating systems give the best results.

Lexan H6000 sheet has a forming temperature range of 185 - 205°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 80°C is recommended. Pre-drying times vary from 3-12 hours for 1.0 to 4.0mm thick sheets.

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 Innovative Plastics Specialty Film & Sheet 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



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