

## Description

Lexan\* XHR6000 sheet is a high performance product formulated specifically for demanding applications in the Aerospace interiors market. Lexan XHR6000 sheet combines the features of robust compliance to toxicity, flame, and smoke with very low heat release performance (OSU). Fabrication and thermoforming characteristics are improved over other high heat OSU compliant materials. Lexan\* XHR6000 sheet forms at similar temperatures to Lexan polycarbonate. The proprietary polymer is inherently transparent, so it is readily colorable, including bright whites.

## Typical Property Values ♦

Property	Test Method	Unit	Value
<b>Physical</b>			
Specific Gravity	ASTM D792	---	1.34
Density	ISO 1183	g/cm <sup>3</sup>	1.34
Water absorption, equilibrium, 23°C	ISO 62	%	0.28
Moisture absorption (23°C / 50% RH)	ISO 62	%	0.11
<b>Mechanical</b>			
Tensile stress at yield 50 mm/min	ISO 527	MPa	74
Tensile stress at break 50 mm/min	ISO 527	MPa	76
Tensile strain at yield 50 mm/min	ISO 527	%	6.8
Tensile strain at break 50 mm/min	ISO 527	%	109
Tensile Modulus 1 mm/min	ISO 527	MPa	2500
Flexural stress at yield 2 mm/min	ISO 178	MPa	107
Flexural Modulus 2 mm/min	ISO 178	MPa	2320
Rockwell Hardness, R	ISO 2039	---	125
Rockwell Hardness, M	ISO 2039	---	73
<b>Impact</b>			
Charpy impact, V-notched 23°C	ISO 179/1eA	kJ/m <sup>2</sup>	24
Izod impact, notched 23°C	ISO 180/4A	kJ/m <sup>2</sup>	16
Izod impact, notched -30°C	ISO 180/4A	kJ/m <sup>2</sup>	10
<b>Thermal</b>			
HDT/ Ae, 1.8 MPa edgew. 120*1*04/sp=100	ISO 75/Be	°C	---
Coeff. of Thermal Expansion extr. 23-80°C	ISO 11359-2	1/ °C	5.6x10 <sup>-5</sup>
<b>Flammability</b>			
OSU total heat release (2 min test)	FAR 25.853	kW-min/m <sup>2</sup>	<55
OSU total heat release (peak)	FAR 25.853	kW/m <sup>2</sup>	<55
Vertical Burn a(60s)	FAR 25.853	sec	2.4
Vertical Burn b(12s)	FAR 25.853	sec	0.5
NBS Smoke Density, Flaming, Dmax	ASTM E662	---	<25
Smoke Toxicity	ABD0031, BSS7239, SMP800C		Pass

♦ 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 IP 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.

\* Lexan is a trademark of SABIC Innovative Plastics IP BV

## Description

Lexan\* XHR6000 sheet is a high performance product formulated specifically for demanding applications in the Aerospace interiors market. Lexan XHR6000 sheet combines the features of robust compliance to toxicity, flame, and smoke with very low heat release performance (OSU). Fabrication and thermoforming characteristics are improved over other high heat OSU compliant materials. Lexan\* XHR6000 sheet forms at similar temperatures to Lexan polycarbonate. The proprietary polymer is inherently transparent, so it is readily colorable, including bright whites.

## Typical Property Values ♦

Property	Test Method	Unit	Value
<b>Physical</b>			
Specific Gravity	ASTM D792	---	1.34
Density	ISO 1183	lb/in <sup>3</sup>	0.04
Water absorption, equilibrium, 73°F	ISO 62	%	0.28
Moisture absorption (23°C / 50% RH)	ISO 62	%	0.11
<b>Mechanical</b>			
Tensile stress at yield, Type I, 2.0 in/min	ASTM D638	psi	10400
Tensile stress at break, Type I, 2.0 in/min	ASTM D638	psi	10600
Tensile strain at yield, Type I, 2.0 in/min	ASTM D638	%	6.7
Tensile strain at break, Type I, 2.0 in/min	ASTM D638	%	102
Tensile Modulus, 2.0 in/min	ASTM D638	psi	379000
Flexural stress at yield, 0.05 in/min, 2 in span	ASTM D790	psi	16600
Flexural Modulus, 0.05 in/min, 2 in span	ASTM D790	psi	362000
Rockwell Hardness, R	ASTM D785	---	125
Rockwell Hardness, M	ASTM D785	---	73
<b>Impact</b>			
Charpy impact, V-notched 23°C	ISO 179/1eA	kJ/m <sup>2</sup>	24
Izod impact, notched 73°F	ASTM D256	ft-lb/in <sup>2</sup>	3.6
Izod impact, notched -22°F	ASTM D256	ft-lb/in <sup>2</sup>	2
Instrumented Impact Total Energy, 73°F	ASTM D3763	in-lb	708
<b>Thermal</b>			
HDT, 264 psi, 0.125", unannealed	ASTM D648	°F	249
Coeff. of Thermal Expansion extr. 23-80°C	ASTM E831	1/ °F	3.10 <sup>-6</sup>
<b>Flammability</b>			
OSU total heat release (2 min test)	FAR 25.853	kW-min/m <sup>2</sup>	<55
OSU total heat release (5 min test)	FAR 25.853	kW/m <sup>2</sup>	<55
Vertical Burn a(60s)	FAR 25.853	sec	2.4
Vertical Burn b(12s)	FAR 25.853	sec	0.5
NBS Smoke Density, Flaming, Dmax	ASTM E662	---	<25
Smoke Toxicity	ABD0031, BSS7239, SMP800C		Pass

♦ 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 IP 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.

\* Lexan is a trademark of SABIC Innovative Plastics IP BV

## Fabrication

Information to be developed.

## Product availability

Lexan\* XHR600 sheet is normally manufactured in the standard configurations below;

### Europe:

**Standard gauges:** 1, 1.5, 2, 3, 4 mm

**Size:** 1250 x 2050 mm

**Textures:** XHR6006 (suede)

**Masking:** None

**Colors:** To be determined, custom color available

**MOQ:** To be determined

### America:

**Standard gauges:** 0.04, 0.06, 0.08, 0.093, 0.125, 0.157 inch

**Size:** 4x8' (web width)

**Textures:** XHR6006 (suede),

Available upon special request: XHR6000 (polished), XHR6029 (deep velvet)

**Masking:** None

**Colors:** To be determined, custom color available

**MOQ:** To be determined



\* Trademark of SABIC Innovative Plastics IP BV

Americas:  
SABIC Innovative Plastics  
Specialty Film & Sheet  
One Plastics Avenue  
Pittsfield, MA 01201  
USA  
Tel. (1) (413) 448 5400  
Fax. (1) (413) 448 7506  
Toll free: 1-800 451 3147

Europe:  
SABIC Innovative Plastics  
Specialty Film & Sheet  
Plasticslaan 1  
NL - 4612 PX Bergen op Zoom  
The Netherlands  
Tel. (31) (164) 292911  
Fax. (31) (164) 293272

Pacific:  
SABIC Innovative Plastics  
Specialty Film & Sheet  
1266 Nanjing Road (W)  
16th Floor, Plaza 66  
200040 Shanghai  
China  
Tel. (86) 21 6288 1088  
Fax. (86) 21 6288 0818

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 Innovative Plastics IP BV

[www.sabic-ip.com](http://www.sabic-ip.com)

Latest update SABIC (04/08)