

## 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.

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## 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

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## 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

### Americas:

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