

## Description

Lexan ULG 1003 sheet is a transparent lamination grade offering excellent optical properties for lamination with glass in mainly symmetrical security glazing panels. Can be specified to match specific levels of threat and has an excellent optical clarity.

## Typical Property Values ♦

Property	Test Method	Unit	Value
<b>Physical</b>			
Density	ISO 1183	g/cm <sup>3</sup>	1.20
Water Absorption, 24 hours	ISO 62	mg	10
<b>Optical</b>			
Light transmission (depending on gauge)	ASTM D1003	%	84-90
Distortion <sup>#</sup>	DIN 52305-A-AZ		pass
<b>Mechanical</b>			
Tensile stress at yield, 50 mm/min.	ISO 527	MPa	60
Tensile stress at break, 50 mm/min.	ISO 527	MPa	70
Tensile strain at yield 50 mm/min.	ISO 527	%	6
Tensile strain at break 50 mm/min.	ISO 527	%	120
Tensile modulus 1mm/min.	ISO 527	MPa	2350
Flexural stress at yield 2 mm/min.	ISO 178	MPa	90
Flexural modulus 2mm/min.	ISO 178	MPa	2300
Hardness H358/30	ISO 2039/1	MPa	95
Charpy Impact, notched <sup>##</sup>	ISO 0179/2c	kJ/m <sup>2</sup>	35
Izod impact, notched <sup>##</sup>	ISO 180/1A	J/m	850
<b>Thermal</b>			
Vicat Softening Temp, Rate B /120	ISO 306	°C	145
HDT, 0.45 MPa	ISO 75	°C	138
Thermal Conductivity	ASTM C177	W/m°C	0.20
Coeff of Linear			
Therm. Expansion	DIN 53752	m/m°C	7x10 <sup>-5</sup>
Thermal Index	UL746B	°C	100
<b>Flammability</b>			
Oxygen Index	ASTM D 2863	%	25

<sup>#</sup> Passing DIN 52305-A-AZ requirements for 2.5 - 8 mm gauge.

<sup>##</sup> In-house tested

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## Chemical Resistance

Although Lexan ULG 1003 sheet is resistant to most mineral oils, greases, aliphatic hydrocarbons and acids under low or moderate stress levels, we strongly recommend testing of applications where the product will come into contact with these or other aggressive chemicals. For asymmetrical configurations where the Lexan surface will not be bonded with glass, we advise to apply our 1-side hard coated product Lexan Margard HLG5 and HLGA3 sheets.

## Optical Properties

The optical qualities of Lexan ULG 1003 sheets are the result of constant research in order to provide the best values. This is ensured by in-house testing of Lexan sheets in 2.5-8 mm thickness according DIN 52305-A-AZ which specifies optical requirements for glazing in vehicles. During the optical control phase, Lexan ULG 1003 sheets are examined against a special background, called image magnification, for proper identification of optical imperfections. Our internal manufacturing specifications are under constant supervision of our ISO 9002 approved Quality Management department.

## Product Availability

**Product code :** ULG 1003 sheet  
**Standard size :** 2050 x 3050 mm<sup>‡</sup>  
**Thicknesses :** 2.5 ,3,4,5,6,8,9.5 and 12 mm  
**Standard color:** 112 (clear) <sup>‡</sup>

<sup>‡</sup>) Different colors and dimensions can be made available by prior arrangement for ULG 003. Such arrangements may affect prices and/or conditions of sale.



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