

# LEXAN™ ULG1003A SHEET

## PRODUCT DATASHEET

### DESCRIPTION

LEXAN™ ULG1003A sheet is a transparent lamination grade offering excellent optical properties for lamination with glass in mainly symmetrical security glazing panels. The product is unique in the market in terms of visual defects and low optical distortion. Can be specified to match specific levels of threat and has an excellent optical clarity.

### TYPICAL PROPERTY VALUES

PROPERTY	TEST METHOD	UNITS	VALUE
<b>PHYSICAL</b>			
Density	ASTM D792	-	1.2
Refractive Index @ 77°F	ASTM D542A	-	1.586
Light Transmission (Average), 1/8" disk	ASTM D1003		88
Refractive Index @ 77°F	ASTM D542A	-	1.586
Water Absorption, Equilibrium, 24 hrs	ASTM D570	%	0.15
@ 73°F			0.35
@ 212°F			0.58
<b>MECHANICAL</b>			
Tensile Strength @ Yield	ASTM D638	psi	9,000
@ Ultimate			9,500
Tensile Modulus	ASTM D638	psi	345,000
Flexural Strength	ASTM D790	psi	13,000
Flexural Modulus	ASTM D790	psi	2300
Flexural Endurance @ 1,800 cycles/min,			
73°F, 50% RH	ASTM D671	psi	1,000
Compressive Strength	ASTM D695	psi	12,500
Compressive Modulus	ASTM D695	psi	345,000
Elongation	ASTM D638	%	110
Poisson's Ratio			0.37
<b>IMPACT</b>			
Izod Impact Strength Notched @ 1/8"	ASTM D256A	ft-lbs/in	12-16
Unnotched @ 1/8"			60 (no failure)
Tensile Impact Strength, S-Type Specimen	ASTM 1822	ft-lbs/in <sup>2</sup>	225-300
Shear Strength @ Yield	ASTM D732	psi	6,000
@ Ultimate			10,000
Shear Modulus	ASTM D732	psi	114,000
Deformation Under Load @ 4,000 psi @ 73°F	ASTM D621	%	0.2
@ 158°F			0.3

PROPERTY	TEST METHOD	UNITS	VALUE
<b>THERMAL</b>			
Coefficient of Thermal Expansion	ASTM D696	in/in/°F	3.75 x 10 <sup>-5</sup>
Coefficient of Thermal Conductivity	ASTM C177	Btu•in/hr•ft <sup>2</sup> •°F	1.35
Specific Heat @ 40°C		cal/gm/°C	0.3
Heat Deflection Temperature @ 264 psi	ASTM D648	°F	270
@ 66 psi			280
Brittle Temperature	ASTM D746	°F	211
<b>ELECTRICAL</b>			
Dielectric Constant @ 10 Hz	ASTM D150	Ohm.cm	2.96
@ 60 Hz			3.17
Volume Resistivity	ASTM D257	ohm-cm	8.2 x 10 <sup>16</sup>
Power Factor @ 60 Hz	ASTM D150		0.0009
@ 1,000,000 Hz			0.01
Arc Resistance	ASTM D495	sec	
Stainless Steel Strip Electrodes			10–11
Tungsten Electrodes			120
<b>FLAMMABILITY</b>			
Horizontal Burn (Flame Spread) AEB	ASTM D635	in	<1

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

™ Trademarks of SABIC.

## FIRE TEST PERFORMANCE

LEXAN™ ULG1003A sheet has HB rating. [UL File Number: E121562](#)

## CHEMICAL RESISTANCE

Although LEXAN™ ULG1003A 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 HLG10.

## OPTICAL PROPERTIES

The optical qualities of LEXAN ULG1003A 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 3-6 mm thickness according ASTM C1652. During the optical control phase, LEXAN ULG1003A 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

<b>Product Code</b>	:	ULG1003A Sheet
<b>Standard Size</b>	:	4'X8, 8'X4', 8'X5', 8'X6'
<b>Thicknesses</b>	:	.118, .177, .220, .236
<b>Standard Colors</b>	:	Clear (112)

Different dimensions can be made available by prior arrangements. Such arrangement may affect prices and/or conditions of sale. Pls. check availability with your sales team.

## CONTACT US:

### MIDDLE EAST

SABIC Global Headquarters  
PO Box 5101  
Riyadh 11422  
Saudi Arabia  
T +966 (0) 1 225 8000  
E info@sabic.com

### AMERICAS

Functional Forms  
2500 City West  
Boulevard Suite 100  
Houston, TX 77042  
USA  
Toll-free (800) 323 3783  
E spinside.sales@sabic.com

### EUROPE

Functional Forms  
Plasticslaan 1  
4612 PX  
Bergen op Zoom  
The Netherlands  
T +31 (0)164 293678  
E ff.info@sabic.com

### ASIA PACIFIC

Functional Forms  
2550 Xiupu Road  
Pudong  
201319 Shanghai  
China  
T +86 20 2866 6168  
E ff.info@sabic.com



DISCLAIMER: THE MATERIALS, PRODUCTS AND SERVICES OF SAUDI BASIC INDUSTRIES CORPORATION (SABIC) OR ITS SUBSIDIARIES OR AFFILIATES ("SELLER") ARE SOLD SUBJECT TO SELLER'S STANDARD CONDITIONS OF SALE, WHICH ARE AVAILABLE UPON REQUEST. INFORMATION AND RECOMMENDATIONS CONTAINED IN THIS DOCUMENT ARE GIVEN IN GOOD FAITH. HOWEVER, SELLER MAKES NO EXPRESS OR IMPLIED REPRESENTATION, WARRANTY OR GUARANTEE (i) THAT ANY RESULTS DESCRIBED IN THIS DOCUMENT WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN OR APPLICATION INCORPORATING SELLER'S MATERIALS, PRODUCTS, SERVICES OR RECOMMENDATIONS. UNLESS OTHERWISE PROVIDED IN SELLER'S STANDARD CONDITIONS OF SALE, SELLER SHALL NOT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS, SERVICES OR RECOMMENDATIONS DESCRIBED IN THIS DOCUMENT. Each user is responsible for making its own determination as to the suitability of Seller's materials, products, services or recommendations for the user's particular use through appropriate end-use and other 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. Statements by Seller concerning a possible use of any material, product, service or design do not, are not intended to, and should not be construed to grant any license under any patent or other intellectual property right of Seller or as a recommendation for the use of any material, product, service or design in a manner that infringes any patent or other intellectual property right. SABIC and brands marked with ™ are trademarks of SABIC or its subsidiaries or affiliates, unless otherwise noted.

© 2022 Saudi Basic Industries Corporation (SABIC). All Rights Reserved.

Any brands, products or services of other companies referenced in this document are the trademarks, service marks and/or trade names of their respective holders.