POLYVANTIS

PRODUCT DATASHEET

LEXAN™ ULG1003 SHEET

DESCRIPTION

LEXAN™ ULG1003 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
PHYSICAL			
Density	ISO 1183	g/cm³	1.20
Water absorption, 50% RH, 23 °C	ISO 62	%	0.15
Water absorption, saturation, 23°C	ISO 62	%	0.35
MECHANICAL			
Yield stress 50 mm/min	ISO 527	MPa	>60
Yield strain 50 mm/min	ISO 527	%	6
Nominal strain at break 50 mm/min	ISO 527	%	>100
Tensile modulus 1 mm/min	ISO 527	MPa	2300
Flexural strength 2 mm/min	ISO 178	MPa	100
Flexural modulus 2 mm/min	ISO 178	MPa	2300
IMPACT			
Charpy impact, notched 23°C, 3.0 mm	ISO 179/1eA	kJ/m²	75
Izod impact, unnotched 23°C, 3.0 mm	ISO 180/1U	kJ/m²	NB
Izod impact, notched 23°C, 3.0 mm	ISO 180/1A	kJ/m²	70
THERMAL			
Vicat softening temperature, B/120	ISO 306	°C	145
Temperature of deflection under load (type A), 1.8 MPa, flat	ISO 75-2	°C	127
Thermal conductivity	ISO 8302	W/m.°C	0.2
Coefficient of linear thermal expansion, 23-55°C	ISO 11359-2	1/°C	$7x10^{-5}$
Ball pressure test 125 ±2°C	IEC 60695-10-2	-	Pass
ELECTRICAL			
Volume resistivity	IEC 60093	Ohm.cm	$>10^{15}$
Dielectric strength, in oil, 3.2 mm	IEC 60243-1	kV/mm	18
FIRE RATINGS			
Aircraft			
Vertical burn, 12 s	FAR 25.583(a)+App.F	-	Pass (3-6mm)

*These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local POLYVANTIS representative or the POLYVANTIS Quality Services Department.

CHEMICAL RESISTANCE

Although LEXAN™ ULG1003 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 ULG1003 sheets are the result of constant research in order to provide the best values. LEXAN ULG1003 sheets in 2-12 mm thickness are passing a diopter value of 0.06 points according DIN 52305-A-AZ which specifies optical requirements for glazing in vehicles. During the optical control phase, LEXAN ULG1003 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:	LEXAN™ ULG1003 Sheet
Standard size:	2050 x 3050 mm
Gauges:	2-15 mm
Standard color:	Clear 112

Different colors and dimensions can be made available by prior arrangement for ULG1003. Such arrangements may affect prices and/or conditions of sale.

POLYVANTIS

Polycarbonate products are sold globally under the trademark LEXAN™ Film & Sheet, owned by SABIC or its subsidiaries or affiliates.

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LEXAN™ POLYCARBONATE FILM & SHEET Tough, Virtually Unbreakable

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