

LEXAN™ XL102UV SHEET

PRODUCT DATASHEET

DESCRIPTION

LEXAN™ XL102UV sheet combines the impact strength of LEXAN polycarbonate sheet with a proprietary UV-resistant surface treatment on both sides that protects it from weathering. LEXAN XL102UV sheet is the only polycarbonate glazing material backed by a ten-year limited warranty against yellowing, loss of light transmission and breakage[#]). Providing long-lasting clarity over a wide range of weather conditions and environments, LEXAN XL102UV sheet improves service life and reduces life-cycle material costs. LEXAN XL102UV sheet is well suited for all types of vertical glazing and overhead applications such as skylights, covered walkways and barrel vaults.

PRODUCT AVAILABILITY

PROPERTY	TEST METHOD	UNITS	VALUE
Physical			
Specific Gravity	ASTM D792	-	1.20
Sound Transmission, STC Rating (36" x 84")	ASTM E9070	-	
@ 0.118"			25
@ 0.177"			29
@ 0.236"			31
Light Transmission (Average)	ASTM D1003	%	88
Rockwell Hardness	ASTM D785	-	M70, R118
Chemical Resistance	ANSI Z26.1		Passes
Mechanical			
Tensile Strength @ Yield	ASTM D638	psi	9,300
Tensile Modulus	ASTM D638	psi	345,000
Flexural Strength	ASTM D790	psi	14,500
Flexural Modulus	ASTM D790	psi	360,000
Flexural Endurance @ 1,800 Cycles/Min, 73°F, 50% RH	ASTM D671	psi	1,000
Compressive Strength @ yield	ASTM D695	psi	10,400
Elongation	ASTM D638	%	85
Izod Impact Strength, up to 125 mils, Notched Drop	ASTM D256A	ft-lbs-in	12-18
Dart Impact Strength, 1" dia. Dart @ 73°F	SABIC TestE	ft-lbs	>200
@ 0°F			>200
Thermal			
Coefficient of Thermal Expansion	ASTM D696	in/in/°F	3.75 x 10 ⁻⁵
Thermal Shrinkage	SABIC Test	%	1
Heat Deflection Temperature @ 264 psi	ASTM D648	°F	
@ 66 psi			270
Shading Coefficient	ASHRAE	-	280
Clear			1.02
Grey/Bronze	ASTM D746	°F	.79
Flammability			
Horizontal Burn (Flame Spread) AEB	ASTM D635	in	<1
Ignition Temperature Flash	ASTM D1929	°F	873
Self			1,076

Request details of limited warranty and maintenance instructions

◆ These typical values are not intended for specification purposes. If minimum certifiable properties are required please contact your local Polymershapes representative

£ Measured by dropping a 5-pound dart (1" dia. tip) from a height of 40 feet. These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact you local Polymershapes representative

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UL File Number: E121562

ENERGY EFFICIENCY

LEXAN XL102UV sheet provides up to 25% better thermal insulation than single-panel glass. Double glazing increases the advantage.

U-Value Comparison

Winter Heat Loss (BTU/hr./sq.ft./°F)			
Thickness	LEXAN Glass XL102UV Sheet	Glass	LEXAN [®] Sheet % Advantage Over Glass
.118"	1.05	1.16	10
.177"	1.01	1.15	12
.236"	.96	1.14	16
Double Glazed#	.43	.49	12

Two ¼ liters with ½" air space

Summer Heat Gain (BTU/hr./sq.ft./°F)			
Thickness	LEXAN Glass XL102UV Sheet	Glass	LEXAN [®] Sheet % Advantage Over Glass
.118"	.97	1.04	7
.177"	.93	1.04	11
.236"	.90	1.04	14
Double Glazed#	.43	.56	20

Two ¼ liters with ½" air space

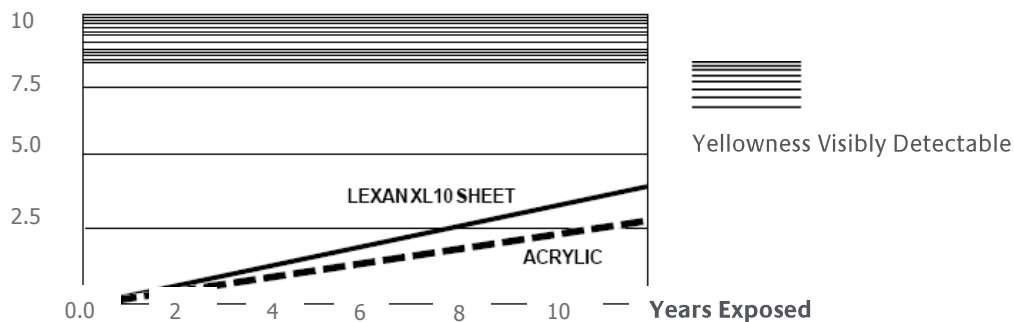
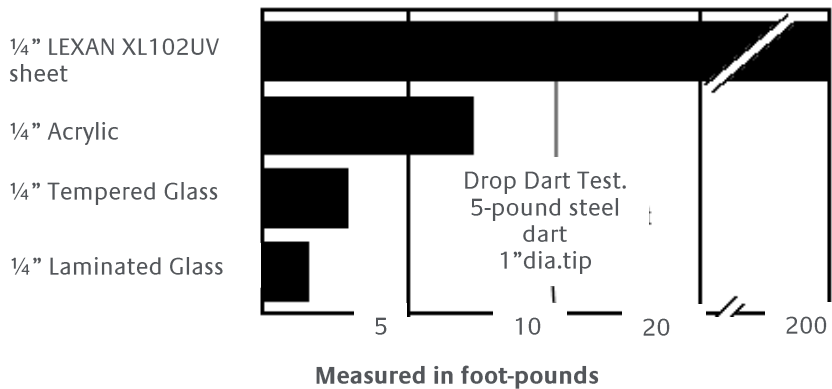
WEIGHT

Only 15% the weight of double-panel glass, LEXAN XL102UV sheet requires less structural support than either glass or acrylic. Its light weight also results in easier handling and installation, as well as transportation cost savings.

Weight (lbs./ft. ²)		
Thickness	LEXAN [®] Glass XL102UV Sheet	Glass
.118"	.74	1.60
.177"	1.11	2.40
.236"	1.47	3.20

IMPACT RESISTANCE

Virtually unbreakable, LEXAN XL102UV sheet has 250 times the impact strength of glass and 30 times that of acrylic.



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