

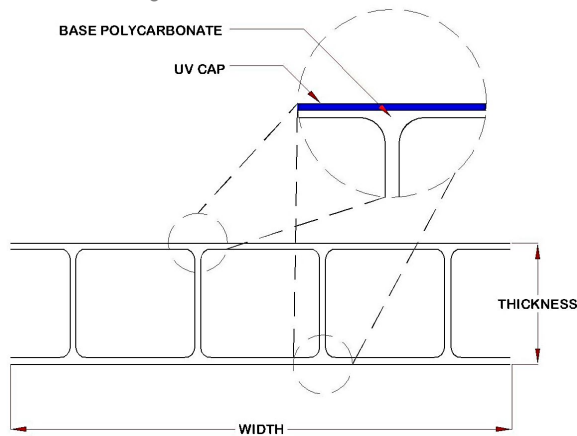
LASERLITE® MULTIWALL | Product Data Sheet

STANDARD SIZES

Laserlite® Multiwall is a twinwall-hollow structure polycarbonate sheet, making it lightweight and keeping thermal transmittance low.


Thickness (mm)	6	8	10	
Area Weight (Kg/m ²)	1.3	1.5	1.7	
Width (mm)	2,100	2,100	2,100	
Length (mm)	Customized			
U-Value (W/m ² .°C)	3.7	3.3	3.17	
R-Value (m ² .°C/W)	0.270	0.303	0.316	
K-Value (W/m.°C)	0.022	0.026	0.032	
Sound Insulation (dB)	10	13	16	
Light Transmission	Clear	86%	86%	86%
	Grey Tint	13%	11%	9%
	Bronze Tint	29%	25%	22%
	Opal	21%	18%	16%
	Platinum	15%	13%	11%

* Other sizes are available upon request, subject to minimum order quantity and/or additional charge



SOLAR PROPERTIES

Clear Laserlite® Multiwall can achieve up to 86% light transmission, allowing sufficient daylight entrance when used as building material. Tints and colors are also available to choose

Color	Heat Transmission	Solar Heat Gain	Shading Coefficient
Clear	76%	0.789	0.907
Grey Tint	 24%	0.473	0.544
Bronze Tint	 30%	0.516	0.593
Opal	 29%	0.343	0.394
Platinum	 16%	0.327	0.376

TYPICAL PROPERTIES

Laserlite® Multiwall is manufactured from best quality polycarbonate resin that providing good technical properties. Making its applications is versatile to use in many, like roofing, facades, canopy, gazebo, carports, partition walls, bus shelters, sport hall, green house, swimming pool covers.

Property	Method	Unit	Value
Mechanical			
Tensile strength at yield	ASTM D638	MPa	64
Elongation at break	ASTM D638	%	90
Flexural Strength	ASTM D790	MPa	93
Impact falling weight	ASTM D5420	J	40
Thermal			
Coefficient of thermal expansion	ISO 6946	mm/m/°C	0.065
Service temperature	-	°C	-20 to 120
Flammability			
Horizontal burn	UL94	mm	<2.54
Vertical burn	UL94	-	V1 Class
Ignition temperature, flash	ASTM D1929	°C	440

CHEMICAL RESISTANCE

Laserlite® Multiwall like others may be affected by certain substances that may cause surface cracks. For general guidance, Laserlite® Multiwall can resist below chemicals:

Resist towards	Damaged by
Mineral acid low concentration	alkali
Neutral & acidic salt solution	Ammonia & amines
Oxidizing & reducing agents	Aromatic or halogenated solvents
Saturated, aliphatic hydrocarbons & alcohol (except methanol)	Aldehydes, ketones and esters
Many oils, fats, waxes	Methyl alcohol

WIND LOAD

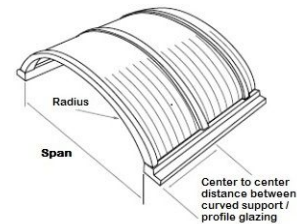
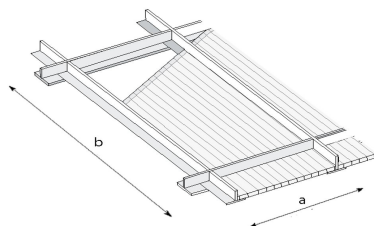
When doing sheet glazing with known wind load and size of glazing spot, it is recommended to set distance between shorter span:

Four Sides Clamped Flat Glazing

Thickness (mm)	Wind Load (kg/m²)	Center to Center Distance (mm) Between Shorter Span According to a:b* Ratio		
		1:1	1:1.5	1:>1.5
6	60	1,050	920	610
	80	950	850	570
	100	900	780	530
8	60	1,250	1,100	720
	80	1,150	1,020	655
	100	1,075	940	610
	120	1,020	900	570
	140	970	830	535
10	60	1,500	1,150	815
	80	1,375	1,070	730
	100	1,280	950	670
	120	1,215	920	620
	140	1,160	850	585
	160	1,110	800	545
	180	1,070	760	520
	200	-	-	-

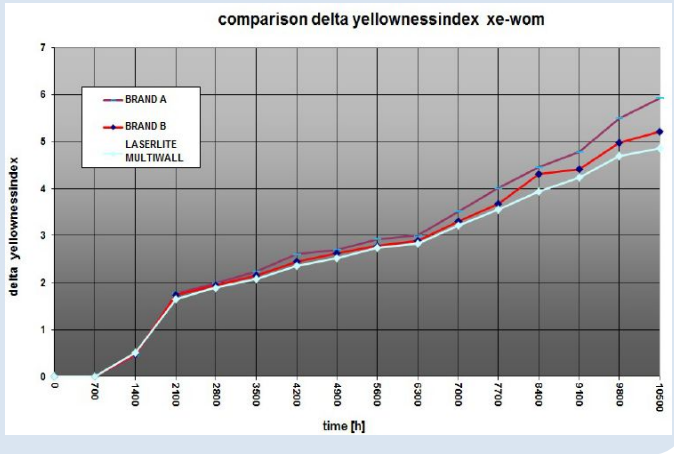
*a = represents the center to center distance of glazing profiles on the short glazing side i.e. width of the sheet.

*b = represents the center to center distance of glazing profiles on the long glazing side i.e. Length of sheet.



PRODUCT PERFORMANCE

The UV cap material of Laserlite® Multiwall sheet is co-extruded on both sides, providing excellent protection against degradation and discoloration caused by UV radiation in sunlight, after years of exposure (evaluated according to ASTM D1925). The sheet shall not break due to loss of impact strength as a result of weathering or as a result of impact of hail measuring up to 25 mm diameter, attaining a velocity of up to 21 m/s. All above product performance is covered with 15 years of warranty.



Two Sides Clamped Arched Glazing

Thickness (mm)	Sheet Arched - Curvature Radius (mm)	Center to Center Distance (mm)							
		Wind Load (kg/m²)							
		60	80	100	120	140	160	180	200
6	1,500	1,450	1,100	900	750	660	570	500	450
	2,000	920	750	600	530	450	450	450	450
	2,500	650	550	450	450	450	450	450	450
	4,000	420	350	-	-	-	-	-	-
8	6,000	420	350	-	-	-	-	-	-
	1,500	2,000	1,700	1,350	1,160	1,000	880	800	720
	2,000	1,480	1,150	920	780	680	600	550	550
	2,500	1,100	830	650	550	550	550	550	550
10	4,000	560	500	-	-	-	-	-	-
	6,000	540	480	-	-	-	-	-	-
	1,500	2,100	2,100	1,700	1,500	1,300	1,150	1,000	900
	2,000	2,000	1,600	1,280	1,080	930	830	750	680
	2,500	1,530	1,150	950	800	700	630	620	560
	4,000	680	550	500	450	-	-	-	-
	6,000	640	520	500	450	-	-	-	-

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