

# Laserlite® Multiwall Product Data Sheet

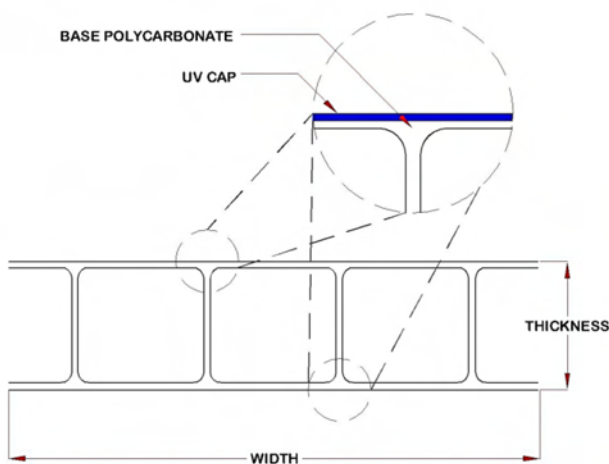


## Standard Sizes

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

Thickness (mm)	10
Area Weight (Kg/m <sup>2</sup> )	1.7
Width (mm)	1,050
Length (mm)	Customised
U-Value (W/m <sup>2</sup> , °C)	3.170
R-Value m <sup>2</sup> .°C/W)	0.316
K-Value (W/m.°C)	0.032
Sound Insulation (dB)	16

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



## Typical Properties

Laserlite® Multiwall is manufactured from the best quality polycarbonate resin that provides good technical properties-- making it a versatile substrate to use in its applications including: roofing, facades, canopies, gazebos, carports, partition walls, bus shelters, sport halls, greenhouses, swimming pool covers and more.

Property	Method	Unit	Value
<b>Mechanical</b>			
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
<b>Thermal</b>			
Coefficient of thermal expansion	ISO 6946	MPa	64
Service Temperature	-	°C	-20 - 120
<b>Flammability</b>			
Horizontal Burn	UL94	mm	<2.54
Vertical Burn	UL94	-	V1
Ignition temperature, flash	ASTM D1929	°C	440

## Optical and Solar Properties

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

Colour of Tint	Light Transmission	Heat Transmission	Solar Heat Gain	Shading Coefficient
Clear	86%	76%	0.789	0.907
Grey	9%	24%	0.473	0.544
Bronze	22%	30%	0.516	0.593
Opal	16%	29%	0.343	0.394
Platinum	11%	16%	0.327	0.376

\*According to thickness of 10mm.

## Chemical Resistance

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

Resist Towards	Damaged By
Mineral acid low concentration	Alkali
Neutral and Acidic Salt Solution	Ammonia and Amines
Oxidising and reducing agents	Aromatic or halogenated solvents
Saturated, aliphatic hydrocarbons and alcohol (except methanol)	Aldehydes, ketones and esters
Many oils, fats, waxes	Methyl Alcohol

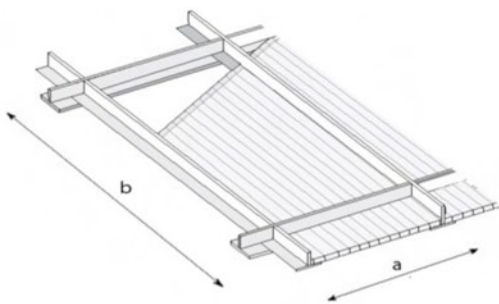
## Wind Load

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

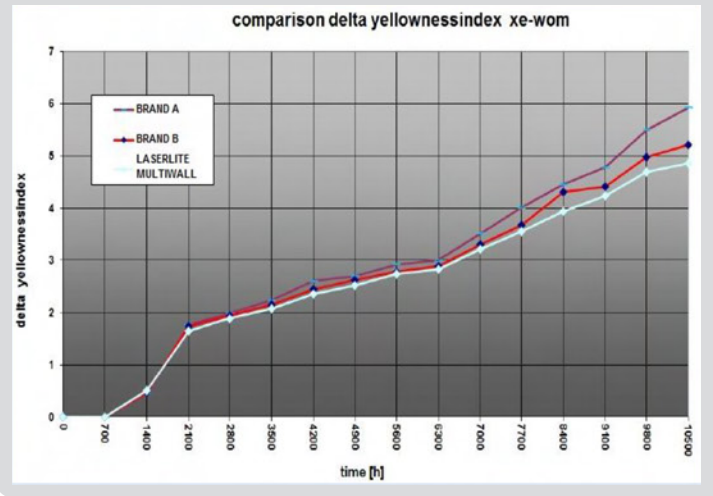
Thickness (mm)	Wind Load (Kg/m <sup>2</sup> )	Centre to Centre Distance (mm)*		
		1 : 1	1 : 1 : 5	1 : >1.5
10	60	1,500	1,150	815
	80	1,375	1070	730
	100	1,280	950	670
	120	1,215	920	620
	140	1,160	850	585
	160	1,110	800	545
	200	-	-	-

\*Between Shorter Span according to a : b Ratio). "a" represents the centre-to-centre distance of glazing profiles on the short glazing side. i.e. width of the sheet. "b" represents the centre-to-centre distance of glazing profiles on the long glazing side i.e. length of the sheet



## Typical Properties

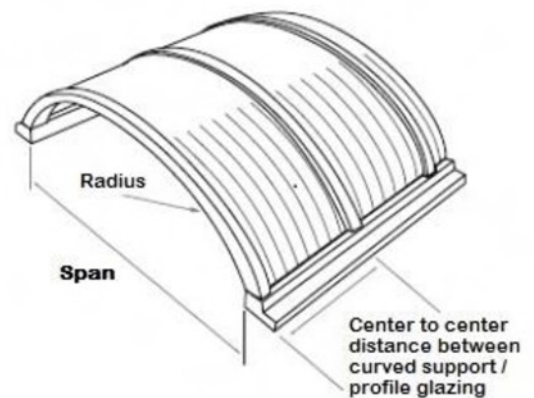
Laserlite® Multiwall is manufactured from the best quality polycarbonate resin that provides good technical properties-- making it a versatile substrate to use in its applications including: roofing, facades, canopies, gazebos, carports, partition walls, bus shelters, sport halls, greenhouses, swimming pool covers and more.



### Two Sides Clamped Arched Glazing

Thickness (mm)	Wind Load (Kg/m <sup>2</sup> )	Centre to Centre Distance (mm)*					
		1,500	2,000	2,300	2,600	2,900	3,400
10	60	2,100	200	1,700	1,450	1,220	100
	80	2,100	1,600	1,300	1,070	900	830
	100	1,700	1,280	1,060	900	790	750
	120	1,500	1,080	890	750	700	700
	140	1,300	930	780	660	660	660
	160	1,150	830	690	630	630	630
	180	1,000	750	620	620	620	620
	200	900	680	560	560	560	560

\*According to Sheet Arched-Curvature Radius (mm).



This specification provides typical data to the best of our knowledge at the time of publishing. Due to our inability to control conditions of use and application, we are unable to make any recommendations or suggestions. Laserlite Building Products assumes no liability for use of information presented herein.

