Product Data Sheet

Technical details to help with your project design

Colour

clear | diffuser opal | smooth cream | antique bronze | smoke grey

Profile

corrugated | greca | 5 - rib

Lifetime Gold WARRANTY*

WARRANTY Laserlite® 1000 (the product) is warranted to perform as follows:

1. LOSS OF LIGHT TRANSMISSION - LIFETIME WARRANTY

For the commercial life of the Products (subject to the terms below) they will not lose the ability to transmit light*.

The loss of light transmission will not exceed 8% in the first 10 years (0.8% per year), from the date of manufacture and 1% per year thereafter as long as the sheet lasts in its original installation, available to the original purchaser only (when tested in accordance with AS/NZ 4257.4-1994 determination of diffuse light transmission).

1. Installation must comply to the local building code. Local council approval may be required.
Laserlite® standard installation instructions apply as indicated in installation brochure.
2. Specific installation instructions apply available from www.bayermaterialscience.com.au or a Bayer MaterialScience office.
3. Product certification Licence number 1811 in relation to AS/NZS 4256.5:2006 ongoing compliance. Independent third party monitoring of complaince is conducted by SAI Global Limited a JAZ-ANZ accredited certification body.

Product Liability Clause: This information and our technical advise whether verbal, in writing or by way of trials, are given in good faith but without warranty. Our advice does not release you from the obligation to verify the information provided in our safety data and technical information sheets and to test the products as to their suitability for the intended use and processes. The application, use and processing of our products and the products manufactured by you on the basis of our technical advise are beyond our control and therefore entirely your own responsibility. Our products are sold in accordance with the current version of our Terms and Conditions of Sale. The information contained in this brochure is to the best of our knowledge accurate, but all recommendations are made without any warranty whatsoever.

	Technical data	Value
	Thermal Expansion	2.1mm per 3m per 10°C
	Thermal Conductivity	0.17 W/m°C
	Vicat softening point	135°C (AS 1462)
	Tensile Strength	65 Mpa (AS 1145-1989)
	Impact Strength	Exceeds 12 joules (AS4257.6-1994) Approx 250 times more than glass
	Corrugation retention	No change for up to 2 hours at 100°C

1Thermal Expansion – calculate from ambient temperature at time of installation.
2Impact resistance can decline with age

		Test conditions	Units	Standards	Makrolon resin value
	Rheological properties				
C	Melt Volume – Flow rate	300°C; 1.2kg	cm^3/(10min)	ISO 1133	6
	Melt Mass – Flow rate	300°C; 1.2kg	g/(10min)	ISO 1133	6.5
	Moulding shrinkage Parallel/normal		%	b.o ISO 2577	0.6-0.8
	Mechanical properties				
C	Tensile modulus	1mm/min	MPa	ISO527	2350
C	Yield Stress	50mm/min	MPa	ISO527	65
C	Yield Strain	50mm/min	%	ISO527-1;2	6.3
C	Nominal tensile strain at break	50mm/min	%	ISO527	>50
C	Stress at break	50mm/min	MPa	ISO527-1;2	70
C	Strain at break	50mm/min	%	b.o ISO527-1;2	120
C	Tensile Creep modulus	1 hr	MPa	ISO 899-1	2200
C	Tensile Creep modulus	1000h	MPa	ISO 899-1	1900
C	CHARPY impact strength	23°C	KJ/M^2	ISO 179-1eU	NB
C	CHARPY impact strength	-30°C	KJ/M^2	ISO 179-1eU	NB
C	IZOD Notched impact strength	23°C; 3mm	KJ/M^2	b.o ISO 180-4A	95
C	IZOD Notched impact strength	-30°C; 3mm	KJ/M^2	b.o ISO 180-4A	16C(P)
	Thermal properties				
C	Glass transition temperature	10°C/min	°C	ISO 11357-1,-2	148
C	Temperature of deflection under load	1.80 MPa 0.45 MPa	°C	ISO 75-1;2	128 140
C	Vicat Softening temperature	50 N; 50°C/h	°C	ISO 306	148
C	Co-efficient of linear thermal expansion	23 to 55°C	10-4/K	ISO 11359-1;-2	0.65
C	Burning Behaviour UL 94 (UL Recognition)	1.5mm 0.75mm 10mm	Class	UL94	HB V-2 V-O(CL)
C	Oxygen index	Procedure A	%	ISO 4589-2	27
	Glow wire test (GWFI)	1.5mm 2.0mm 3.0mm	°C	IEC 695-2-12	850 850 930
	Electrical properties				
C	Relative permittivity	100 Hz		IEC 250	3.1
C	Relative permittivity	1 MHz		IEC 250	3.0
C	Dissipation factor	100 Hz	10^{-4}	IEC 60250	5
C	Dissipation factor	1 MHz	10^{-4}	IEC 60250	95
C	Volume resistivity		0hm. m	IEC 60093	1E14
C	Surface resistivity		0hm	IEC 60093	1E16
C	Electrical strength	1mm	kV/mm	IEC 60243-1	34
C	Comparative tracking index (CTI)	Solution A	Rating	IEC 112	250
	Other properties				
C	Water absorption (saturation value)	Water at 23°C	%	ISO 62	0.30
C	Water absorption (equilibrium value)	23°C / 50% r.h	%	ISO 62	0.12
C	Density		Kg/M^3	ISO 1183-1	1200
C	Glass fibre content		%	ISO 3451-1	-
	Material Specific properties				
C	Viscosity number		cm3/g	ISO 1628-1	64
	Refraction index	Procedure A	-	ISO 489	1.587

Physical properties

	Corrugated	Greca	5-rib
Nominal Overall Width (mm)	840	810	830
Nominal Cover width (mm)	755	760	762
Nominal thickness (mm)	0.8	0.8	0.8
Nominal pitch (mm)	75.5	76.0	190.5
Nominal depth of corrugation (mm)	17.5	17.5	29.0
Kg per Lineal metre	0.92	0.93	0.92
Kg per m2	1.10	1.13	1.11

Product performance data

	Diffuse light transmission (AS 4257.4)	Shading Co-efficient Ratio*	Solar heat gain Co-efficient (SHGC)		
Clear	92%	1.00	0.86		
Smoke Grey	24%	0.61	0.52		
Antique Bronze	46%	0.72	0.62		
Opal	56%	0.41	0.36		
Smooth Cream	24%	0.42	0.37		

C= These property characteristics are taken from the CAMPUS plastics data bank and are based on the international catalogue of basic data for plastics according to ISO10350 (Plastics acquisition and presentation of comparable single=Point data, 1993) NB= Non Break
* based on the warming effect of the sun's rays through a sheet vs 3mm float glass (300-2500nm)