

Makrolon® GP. Solid Polycarbonate Sheets.

Makrolon® GP sheet has a polished surface and is UV stabilised polycarbonate sheet for use in glazing and industrial applications. Makrolon® GP sheet offers extreme impact strength, exceeding the physical properties of any product in its class. It combines temperature resistance in a wide range (-100°C up to +120°C) with high optical clarity and good fire behaviour. Makrolon® GP sheet can be thermoformed and offers ease of machining.

Your Benefits:

- extreme impact strength
- good fire behaviour
- broad temperature resistance
- high transparency

Applications:

Makrolon® GP sheet is used extensively in glazing for protection against both accidental breakage and deliberate vandalism. In manufacturing environments, this high impact material excels in applications like machine guards, noise-abatement shields, workstations partitions, freight doors and other in-plant glazing.

Typical Properties:

	Test Conditions	Typical Values	Unit	Standards
PHYSICAL				
Specific gravity		1.20	kg/m	ASTM D792
Hardness		70 ~ 90		ASTM D785
Refractive index		1.59		ASTM D542
Light transmission		85 ~ 91		ASTM D1003
Water absorption	Saturation value in water at 23°C	0.15	%	ASTM D785
MECHANICAL				
Tensile strength		58.8 ~ 68.6	MPa	ASTM D638
Tensile modulus		2400	MPa	ASTM D638
Flexural strength		80.5 ~ 95.2	MPa	ASTM D790
Flexural modulus		2400	MPa	ASTM D638
Elongation		90 ~ 140	%	ASTM D638
compressive strength		73.5 ~ 88.2	MPa	ASTM D695
IZOD notched impact strength		70 ~ 100	kJ/m²	ASTM D256
THERMAL				
Temperature of deflection under load	Method A: 1.80 MPa	128	°C	D648
Vicat softening temperature	50 N; 50 °C/h	147	°C	ISO 306
Coefficient of linear thermal expansion		0.7	10 ⁻⁴ .K ⁻¹	ASTM D696
Thermal conductivity ratio		0.19	W(m-k)	ASTM C177
Continuous use temperature		120	°C	
Combustibility		Self extinguishing		ASTM D635
Flammability UL94	1.5 mm	V-2	Class	UL94
	3.0 mm	V-2	Class	UL94
	6.0 mm	V-2	Class	UL94
ELECTRICAL				
Dielectric strength		30	kV/mm	ASTM D150
Volume resistivity		10 ¹⁶	Ohm-cm	ASTM D150
Dissipation factor	at 100 MHz	10	10 ⁻⁴	ASTM D150
	at 1 MHz	80	10 ⁻⁴	ASTM D150

Product Liability Clause: This information and our technical advise whether verbal, in writing or by way of trials, are given in good faith but with out 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.



made of
makrolon®
the high-tech material

Makrolon® GP. Solid Polycarbonate Sheets.

Light Transmission:

	Clear		Bronze tint		Grey tint		Opal
	3.0 mm	6.0 mm	3.0 mm	6.0 mm	3.0 mm	6.0 mm	4.5 mm
Luminous Transmittance	87.4	85.0	42.6	42.4	21.5	19.8	14.4
U-Value	6.3	5.5	6.3	5.5	6.3	5.5	5.9
Shading co-efficient	1.05	1.02	0.70	0.68	0.60	0.57	0.34

High Impact Strength:

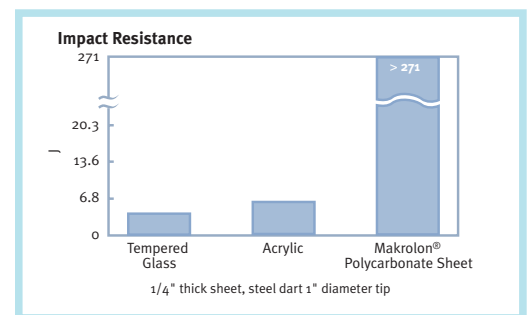
Makrolon® GP sheet is virtually unbreakable with 250 times the impact strength of float glass and 30 times that of acrylic.

Availability:

Makrolon® GP sheets are available in:

Grades:	General Purpose
Colours:	Clear, Bronze tint, Grey tint, Opal
Gauges:	From 1.0 mm to 12 mm
Standard Size:	2440 mm x 1220 mm 2440 mm x 1830 mm (> 3.0 mm gauge, < 12 mm)

Other sizes and thickness on request subject to conditions.



Cleaning and Maintenance:

Under normal conditions, Makrolon® sheet should be washed on a regular basis with mild solution of soap and warm water, using a soft cloth or sponge. To prevent water spots, thoroughly dry with a chamois or sponge. Do not use abrasive cleaners or sharp instruments such as razors or scrapers that may gouge the surface.

Performance Warranty:

Laserlite Australia Pty Ltd warrants the original purchasers of Makrolon® GP sheet, that the product is free from defects due to manufacture or workmanship. Request warranty for full details.

For more information please visit the web site
or contact your local Laserlite Sales office.



Laserlite Australia Pty Ltd
ACN 086 237 765
17-19 Wangara Road
Cheltenham 3192, Vic
Phone: 03 9581 9888
Fax: 03 9583 9003
www.laserlite.com.au

Branch Offices:
Victoria: 03 9581 9888
New South Wales: 02 9890 9333
Queensland: 07 3375 9788
South Australia: 08 8240 4334
Western Australia: 08 9358 5288
Tasmania: 03 6244 7455
ACT: 02 6280 4177

LASERLITE
A U S T R A L I A

A Bayer Company