

PALSUN

POLYCARBONATE SHEET



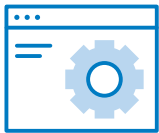
MARKET LEADERS IN

ENGINEERING PLASTIC SOLUTIONS

With a legacy spanning over 50 years in the plastics industry, Dotmar stands as the largest distributor of semi-finished engineering thermoplastics and conveyor components across Australia and New Zealand.

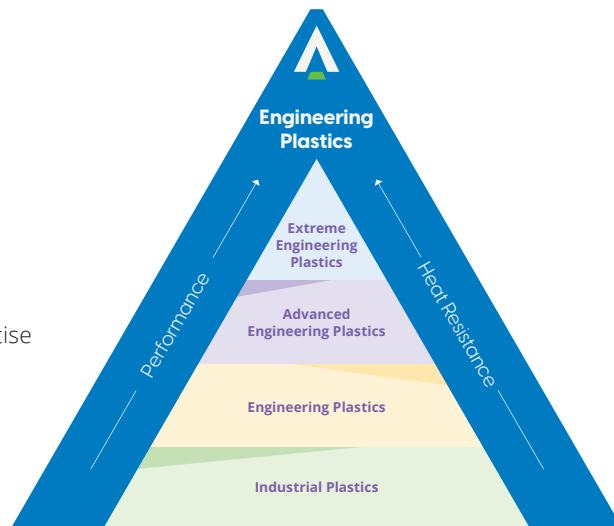
Our unparalleled expertise coupled with our comprehensive range of products and services make us the ideal partner for companies seeking optimal plastics solution.

OUR CAPABILITIES



Application Development

Unsurpassed technical expertise helps mitigate risk during specification. From design to prototyping, partner with Dotmar to help materialise your idea.



Custom Manufacturing and Engineering

With total machining capabilities in all locations, Dotmar can produce finished parts from even the most challenging engineering plastics.

Largest Selection of Engineering Plastics

Representing the most reputable, semi-finished thermoplastic and conveyor part manufacturers, Dotmar stocks an unparalleled range of materials across Australia and New Zealand.

Industry Segments Serviced



Aeronautical



Agricultural



Architectural



Beverage



Chemical Processing



Construction



Defence



Engineering



Fabricator



Food



Forestry



Medical & Research



Mining



Packaging



Paper



Transport



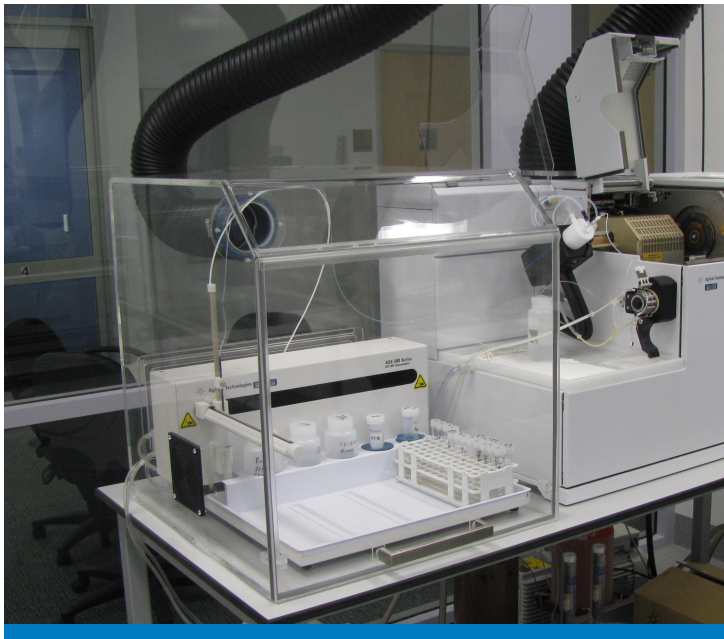
Water Treatment

POLYCARBONATE

Premium quality polycarbonate rod and sheet offer exceptional transparency combined with robust engineering properties. Durable, easy to handle, and highly versatile, polycarbonate stands out for its remarkable impact strength and resistance to shock loads.

Lightweight yet resilient, polycarbonate is the material of choice for precision engineering, process machine guarding, architectural glazing, and a wide range of general manufacturing and industrial applications where clarity is essential.

- Extreme impact strength
- Excellent resistance to temperatures
- OH&S compliant
- Excellent transparency
- Light-weight and easy to process
- Local stock/Warranties



 **PALSUN**[®]
Solid Polycarbonate Sheet

About the Manufacturer - Palsun

For more than 35 years, Palram has expanded its portfolio of PALSUN polycarbonate products for a variety of industrial applications. It is often used in place of glass since it is 200 times stronger, yet half the weight. PALSUN offers extraordinary impact resistance and durability.

Palsun's first-class polycarbonate sheets of constant high quality, based on the use of superior raw materials, an extensive quality management system and production processes certified to EN ISO 9001.

Palsun is a registered trademark of Palram.



Did you know? Dotmar offers a high level of applications advice, technical support and end to end project management and installation globally?

Contact Dotmar Engineering Plastics
Australia
1800 170 001 | dotmar.com.au
New Zealand
0800 650 750 | dotmar.co.nz

Palsun Polycarbonate UV2

Manufactured with two-sided UV protective coatings, Polycarbonate UV2 offers excellent weathering properties, while maintaining high clarity and impact resistance. Palsun Clear UV2 is similar transparency to glass, 200 times stronger and less than half the weight.

Palsun Polycarbonate (PC) UV2 Sheet

Polycarbonate Sheet can be cold bent using standard metal folding equipment.

Sheet Thickness (mm)	Bend Radius (mm)	Max Degree of Bend (mm)
1 to 2	2	90°
3 to 4	3	90°
5 to 6	4	90°

*Palsun Opal UV2 Also Available

Palsun - PALGARD™ Polycarbonate Abrasion Resistant (AR)

Manufactured with two-sided UV protective coatings, Polycarbonate Abrasion Resistant (AR) is an impact resistant polycarbonate sheet manufactured with a unique hard coat surface, which is applied to both sides. Polycarbonate AR Sheets provide excellent scratch, chemical and graffiti resistant properties.

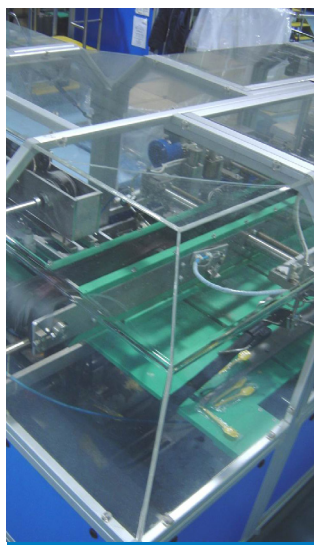
Palsun Polycarbonate (PC) Abrasion Resistant (AR)

Sound Reduction: Polycarbonate products display exceptional sound reduction properties and perform even better than glass.

Panel Thickness (mm)	STC Rating	
	Polycarbonate Sheet (mm)	Float Glass
3.0	25	23
4.5	29	26
6.0	31	27
9.5	34	30

Common Uses

- Machine guards
- Safety and vandal-resistant glazing
- Sight glasses
- Safety visors
- Roof structures
- Correctional facilities
- Security applications
- Electrical components



PALSUN POLYCARBONATE (PC) SHEET PRODUCT RANGE

Palsun Series	Sheet Width (mm)	Thickness (mm)	Colour	Application
Palsun UV2	1220 x 2440	1 - 12	Clear	Two-Sided UV coat, signage, covered walkways, bus shelters, sky lights and exterior applications
	1830 x 2440	2 - 12		
	2050 x 3050	2 - 9.5		
Palsun AR	1220 x 2440	4.5, 9.5 & 12	Clear	Two-sided Abrasion Resistant - High traffic areas, security applications and mass transport.
	1525 x 2440	6		
	1830 x 3050	4.5, 6, 9.5 & 12		

Physical Properties

The following table displays physical properties of 3mm PALSUN sheets

Property	Method**	Conditions	Units - SL	Value
Physical				
Density	D-792		g/cm ³	1.2
Water absorption	D-570	24 hr. @ 23°C		0.15
Mechanical				
Tensile strength at yield	D-638	10 mm/min	MPa	62.5
Tensile strength at break	D-638	10 mm/min	MPa	65
Elongation at yield	D-638	10 mm/min	%	6
Elongation at break	D-638	10 mm/min	%	>80
Tensile modulus of elasticity	D-638	1 mm/min	MPa	2,300
Hexural modulus	D-790	1.3 mm/min	MPa	2,350
Flexural strength at yield	D-790	1.3 mm/min	MPa	93
Notched impact strength Izodi	D-256	23°C	J/m	800
Notched impact strength charpy	D-256	23°C	J/m	800
Impact falling weight	ISO-6603/1b		J	158
Rockwell hardness	D-785		R scale / M scale	125 / 75
Thermal				
Long term service temperature			°C	-50 to +100
Short term service temperature			°C	-50 to +100
Heat deflection temperature	D-648	Load: 1.82 MPa	°C	135
Vicat softening temperature	D-1525	Load: 1 kg	°C	150
Coefficient of linear thermal expansion	D-696		mm/m °C	0.065
Thermal conductivity	C-177		W/m K	0.21
Specific heat capacity	C-351		kJ/kg·°K	1.26
Optical				
Haze	D-1003	Clear Sheet	%	<0.5
Light transmission	D-1003	Clear Sheet	%	89
Refractive index	D-542	Clear Sheet		1.586
Yellowness index	D-1925	Clear Sheet		<1
Electrical				
Dielectric constant	D-150	50 Hz		3.0
	D-150	1 MHz		2.9
Dissipation factor	D-150	1 KHz		0.001
	D-150	1 MHz		0.01
Dielectric strength short time	D-149	500 V/s	kV/mm	>30
Surface resistivity	D-257	Keithley	Ohm	1016
Volume resistance	D-257	Keithley	Ohm-cm	1017

DOTMAR

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