



# PALSUN®

## Flat Solid Polycarbonate Sheet



CONSTRUCTION

FABRICATION

SIGN & DISPLAY

ARCHITECTURE



### Overview

PALSUN combines superior impact resistance and clarity, making it the material of choice for many demanding applications. It is virtually unbreakable, yet it is transparent as glass at less than half its weight.

PALSUN can be cold bent and easily fabricated and formed, making it ideal for barrel vault roofing, skylights, architectural roofing and glazing.

Clear, translucent and opaque PALSUN sheets are also ideal as machine guards, sound barriers, anti-vandal and safety glazing. PALSUN Diffuser and LB sheets are extensively used in durable light boxes.

### Main Benefits

- High impact resistance - Virtually unbreakable
- High clarity and light transmission
- Weather and UV resistant
- Wide service temperature range
- Blocks harmful UV radiation
- Good acoustical insulation
- Lightweight
- Easy to handle and install
- Versatile, formable, and machinable



### Typical Applications

#### Architecture

- Transparent acoustic barriers
- Sport venues
- Skylights
- Shopping centers
- Covered walkways

#### Construction

- Sun rooms and conservatories
- Pergolas and covered patios

#### Safety and Security Glazing

- Safety glazing
- Machine guards
- Bus stops and telephone booth
- Shields for police and security forces
- Glazing in public transportation
- Safety windshields for cars
- Eye protection visors for helmets

#### Sign & Graphics

- Signboards and illuminated signage
- Light Fixtures (white opal, diffused, or embossed sheets)

#### Fabrication

- Thermoformed, vacuum formed, bent, and fabricated items

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## Standard Dimensions\*

Thickness (mm)	Width x Length (mm)	Surface Finish				
		Smooth Both sides	Embossed Both sides	Matte One side	Hair Cell One side	Prismatic One side
1	1220 x 2440	✓		✓		
1.5	1250 x 2440	✓	✓	✓		
2		✓	✓	✓		
2.5 - 6	1220 x 2440	✓	✓	✓	✓	✓
8	2050 x 3050	✓	✓		✓	
9 - 12.7		✓			✓	
2 - 18	2450 x 3050	✓				

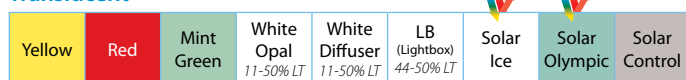
\*Other dimensions are available upon request, subject to a minimum order.

## Colors\*

### Transparent



### Translucent



### Opaque



\*Custom colors and solar transmissions are available upon request, subject to a minimum order.

## PALSUN® Product Range

Product	Description
PALTUF™	General purpose flat solid polycarbonate sheet for interior use
PALSUN®	Flat solid polycarbonate sheet, UV protected on one side
PALSUN® UV2	UV protection on both sides
PALSUN® Embossed*	Embossed surface (E102, prismatic, hair cell)
PALSUN® FR*	Fire retardant, better flammability ratings
PALSUN® Matte*	Matte finish on one side
PALSUN® LB*	Diffused sheet for light box applications
PALSUN® Solar Control*	Efficient heat-blocking with metallic appearance
PALSUN® Breeze*	Advanced heat-blocking with high transparency
PALGARD™	Abrasion resistance on one or both sides

\* Available with UV protection on one or both sides.

## Typical Physical Properties

Property	(Method*)	Conditions	Units	Value
Density	(D-792)		g/cm <sup>3</sup>	1.2
Heat Deflection Temperature	(D-648)	Load: 1.82 MP	°C	130
Service Temperature - Short Term			°C	-50 to +120
Service Temperature - Long Term			°C	-50 to +100
Coefficient of Linear Thermal Expansion	(D-696)		mm/m °C	0.065
Thermal Conductivity	(C-177)		W/m K	0.21
Tensile Strength at Yield	(D-638)	10 mm/min.	MPa	65
Tensile Strength at Break	(D-638)	10 mm/min.	MPa	60
Elongation at Yield	(D-638)	10 mm/min.	%	6
Elongation at Break	(D-638)	10 mm/min.	%	>90
Tensile Modulus of Elasticity	(D-638)	1 mm/min.	MPa	2,300
Flexural Strength	(D-790)	1.3 mm/min.	MPa	100
Flexural Modulus	(D-790)	1.3 mm/min.	MPa	2,600
Impact Falling Weight	(ISO 6603/1 E50)	3mm sheet	J	158
Rockwell Hardness	(D-785)		R Scale	125R
Light Transmission	(D-1003)	3mm clear sheet	%	90
Haze	(D-1003)	3mm clear sheet	%	<0.5
Yellowness Index	(D-313)	3mm clear sheet	YI	<1

\* ASTM except where noted.

## Flammability

Product	Standard	Classification*
PALSUN®	EN13501	B, s1, d0
	BS 476/7	Class 1
	NFP 92501, 4	M2
	DIN 4102	B1
	UL Classified	V2 (File e221255)
	ASTM D-635	CC1
PALSUN® FR	Standard	Classification*
	UL 94	V0 (File e221255)

\* Depends on thickness. For additional information please contact your Palram distributor.

## Installation

Product masking (protective film) must be removed from both sides immediately after installation. Installation instructions are available from your PALRAM distributor upon request.

11/2014 The data in this publication supersedes previous releases. For the latest update refer to our website: [www.palram.com.au](http://www.palram.com.au)



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