

PALSUN®

Flat Polycarbonate Sheets

Introduction

PALSUN delivers the transparency of glass at less than half the weight, combined with unmatched strength. PALSUN can be cold bent, fabricated and/or formed, making it ideal for applications such as barrel vault roofing, roof (sky) lights, architectural roofing and glazing. Clear, translucent or opaque, PALSUN sheets are also ideal as machine guards and safety glazing.

Features at a Glance

- Superb impact resistance practically unbreakable
- High clarity and light transmission
- Weather and UV resistant
- Wide service temperature range
- Protects against harmful UV radiation



- Good acoustical insulation
- Light weight
- Easy to handle and install
- Versatile, formable, and machinable
- ISO 9001:2000 Certified Quality Assurance









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PALSUN - Typical Physical Properties

Property	(Method ^a)	Conditions	Units	Value
Density	(D-792)		g/cm ³	1.2
Heat Deflection Temperature	(D-648)	Load: 1.82 MP	°C	130
Service Temperature Range			°C	-40 to +120
Coefficient of Linear Thermal Ex	pansion (D-696)		cm/cm ℃	6.5 x 10 ⁻⁵
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)	10 mm/min	MPa	2,000
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 E ₅₀)	3mm sheet	J	158
Rockwell Hardness	(D-785)		R Scale	125R
Light Transmission	(D-1003)	3mm clear sheet	%	89%
Haze	(D-1003)	3mm clear sheet	%	<0.5
Yellowness Index	(D-1003)	3mm clear sheet	WI	<1

^a ASTM except where noted otherwise.

Flammability

PALSUN					
Standard		Classification ^b			
BS 476/7		Class 1			
NSP 92501, 4		M1, M2			
DIN 4102		B1, B2			
CSE RF 2/75/A, CSE RF 3/77		Class 1			
UL Classified		V2 (File e221255)			
ASTM D-635		CC1			
PALSUN FR					
Standard	Classification ^b				
UL Classified	V0 (File e221255)				
ASTM D-2863-87	L.O.I. = 30				
AU 1530.3-1982	Ignitability Index = 9				
	Spread of Flame Index = 8				
	Heat Evolved Index = 10				
	eveloped Index = 8				

^b All the above depends on thickness. For additional information please contact your PALSUN distributor.

Installation

Installation instructions can be supplied upon request. The polyethylene protective film must be removed from both sides **immediately** after installation.

PALRAM Flat Polycarbonate Sheets

	Description
PALTUF	Standard grade
PALSUN	Co-extruded UV protection on one side
PALSUN UV2	Co-extruded UV protection on two sides
PALSUN Embossed*	Embossed (E102, prismatic, hair cell)
PALSUN FR*	Higher fire resistant rating
PALSUN Matt	Matt finish on one side
PALSUN Solar Control*	Integrated solar control excludes undesired component of energy spectrum (heat).

*Also available with co-extruded UV protection on two sides.

Colors

- Transparent: Clear (with no residual tint), Solar Gray, Bronze, Red, Blue, Green
- Translucent: Yellow, Red, White Opal, Diffuser
- **Opaque:** Dark Green, Red Brick, Black, Dark Blue, Cream RAL 9001, Light Gray RAL 7035, Off White, Brown, Dark Gray
- Solar Control: Solar Metallic Gray, Solar Ice, Solar Olympic Blue

Standard Dimensions

Please refer to the complete catalogue for information that will assist you in selecting the correct sheet dimensions.

Available Thicknesses

Thickness (mm)	Smooth	Embossed	Matt
1, 1.5	х		Х
2 to 6	Х	Х	Х
8 to 12	Х	Х	

Width (mm) x Length (mm): 1250 × 2050 , 1220 × 2440 , 2050 × 3050

Other dimensions are available with a special order (minimum quantity requirements may apply in certain cases).

Your local distributor:



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