



# Palsun Flat Polycarbonate Sheets

Palsun delivers the transparency of glass at less than half the weight combined with the strength of steel. 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 can also be used for 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
- Flexible, formable and machinable
- ISO 9001:2000 Certified Quality Assurance



Physical Properties	Methods	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 Range	-	-	°C	-40 to +120
Coefficient of Linear Thermal Expansion	D 696	-	cm/cm °C	6.5 X 10 <sup>-5</sup>
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 E50	3mm sheet	J	158
Rockwell Hardness	D 785	-	R Scale	125 R
Light Transmission	D 1003	3mm clear sheet	%	89
Haze	D 1003	3mm clear sheet	%	<0.5
Yellowness Index	D 1003	3mm clear sheet	-	<1



## Palsun

Flammability Properties	Classification
BS 476/7	Class 1Y
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

Flammability Properties	Classification
UL Classified	V0 (File e221255)
ASTM D-2863-87	L.O.I. = 30
AU 1530.3-1982	Ignition Index = 9
	Spread of Flame Index = 8
	Heat Evolved Index = 10
	Smoke Developed Index = 8

Product	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*	Integration solar control, that won't peel off, excludes undesired component of energy spectrum (heat).

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

## Colours

- **Transparent:** Clear (with no residual tint), Solar Gray, Bronze, Red, Blue and Green
- **Translucent:** Solar Control (Solar Metallic Gray and Solar Ice), 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

## Standard Dimensions

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

The data are typical values and are not intended to represent specifications. Their aim is to guide the user towards a material choice. All statements, technical information and recommendations in this product datasheet are presented in good faith, based upon tests believed to be reliable and practical experience. However, Bay Plastics Ltd cannot guarantee accuracy or completeness of this information, and it is the buyer's responsibility to determine the suitability of products in any given application. Therefore no liability whatsoever shall attach to Bay Plastics Ltd for any infringement of the rights owned or controlled by a third party in intellectual, industrial or other property by reason of application, processing or use of the aforementioned information products by the buyer.

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